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HUNT'S
MERCHANTS' MAGAZINE.

DECEMBER, 1847.

Art. I.—AGRICULTURE, AND THE INFLUENCE OF MANUFACTURES AND
PUBLIC IMPROVEMENTS ON AGRICULTURE.*

AGRICULTURE has become essential to life. The forest, the lake, and the ocean, cannot sustain the increasing family of man. Population declines with a declining cultivation, and nations have ceased to be with the extinction of their agriculture.

When harvests are exuberant, joy and health follow in their train ; but let delusive prosperity draw industry from agriculture ; let an insidious disease attack one of its important products ; let an insect, or a parasite, fasten on a single esculent, and mark the effect upon commerce and human life. Upon such an event all business is deranged ; the commercial marine of the world proves itself unequal to the crisis ; sloops of war and frigates become carriers of grain ; warehouses, canals, railroads and ports, prove insufficient for the exigency ; masses of specie flow from the guarded treasures of the old world to the rude cabins of the prairies ; manufactures and public improvements stop in their course ; famine and pestilence invade provinces and States ; and the pale survivors, reckless of those ties which bind man to his birth-place, brave storms and shipwreck, sickness and death, on the route to new and untried regions.

A glance at such events, which the present year has witnessed, must impress us with the vast importance of agriculture, both as an occupation and a science.

Agriculture, in ancient times, was esteemed and honored. In classic Greece and Rome it was the theme of the popular poets of the age, and was not deemed unworthy of distinguished warriors and statesmen. We read of Cicero at his Tuscan villa, of Cato at his farm, of Cincinnatus

* We are indebted to the kindness of E. H. DERBY, Esq., for the manuscript copy of the following Address, delivered at Concord, (Massachusetts,) before the Middlesex County Agricultural Society. It is an able and interesting paper, and was received with marked approbation by the audience. It is published by a unanimous vote of the Society.
—[ED. MERCHANTS' MAGAZINE.]

leaving his plough to command the armies of the republic ; while the great naturalist, Pliny, in his beautiful letters, prides himself on his vineyards.

The overflow of the Nile, the fertilizer of Egypt, has been celebrated for centuries as the great festival of the country ; and in that "central flowery land," which claims such remote antiquity, the sovereign of three hundred millions, "the son of heaven, whose person is almost too sacred to be seen, whose imperial despatch is received amid burning incense and prostration, and in whose presence no one dares speak but in a whisper," annually exhibits himself to his subjects, holding a plough in honor of agriculture.

In England, too, whose nobles shrink from all connection with trade, agriculture is highly honored. Earls, dukes, and princes, preside at agricultural festivals, compete for prizes, and do not disdain to write treatises on the culture of roots, the rotation of crops, and manufacture of composts. Sir Robert Peel, the great statesman of the age, is one day bearing down by his eloquence the opposition of Parliament to his vigorous and enlightened policy, and another discussing the prospects of agriculture among the farmers of Tamworth.

It is, too, with mingled pleasure and pride that we recur to the fact, that the hero and statesman, who led the armies of our revolution, was himself a practical farmer. Amid all the excitement, harassing duties, and embarrassments of a protracted war, he directed by letters the operations of his farm, and finally retired from the highest position to which talent and patriotism could aspire, followed by the love of his countrymen, to devote to agriculture the close of his life ; and it is a little remarkable his example has been followed by nearly all who have succeeded to the office of President.

In view of these facts, may we not ask, has agriculture enjoyed in New England the prominence and popularity to which it may well aspire ; and is the position of the farmer, lord of the soil here, and but a tenant in the old world, duly appreciated ?

It is obvious to the reflecting mind that the farmer has been affected by depressing influences, but is it not as apparent that they are ceasing to operate ?

Our fathers did not enjoy, as farmers, the privileges which we possess. The country, emerging from a long war, was deficient in capital. Implements and buildings were rude and defective ; a few small seaports and fishing-towns formed their principal markets ; and access to these was by no means easy ; for the bridle-path blazed through the forest, the ford and the ferry, were but a poor substitute for the country road, the turnpike, canal, and railroad.

At a period, too, when the wars of Europe made us the carriers of the world, it is not astonishing that talent and enterprise should have been drawn from the secluded home of the farmer to the perilous "march upon the deep ;" to the uncertain pursuits of trade, or to the sharp competition of professional life ; growing with the growth of commerce, or be tempted to exchange the rudeness of the country for the enervating refinement of the city.

Tempérance, taste, and progressive art, education and the weekly press, had not yet gilded the home of the farmer ; judicious enterprise had not yet drawn the daughters of New England from the distaff to the water-falls, and enlivened the adjacent districts by the creation of valuable markets.

Contrast Massachusetts to-day with Massachusetts half a century since. Counties, checkered with factory villages, tied together by a fast-spreading net-work of railroads, sparkling with school-houses, churches, and tasteful residences, and improving farms, and peopled by an intelligent and energetic race—compare these with all that preceded them, and we shall find much to cheer us in the contrast, without detracting, in any degree, from the courage and patriotism of our progenitors.

If, in addition to the progress of the country, we take into account the vast increase of wealth, the advance in the mechanic arts, the discoveries of chemistry, shall we not arrive at the conclusion that agriculture now presents a new aspect, assumes a new importance, and offers new attractions?

Let me invite you, on this occasion, to consider the degree of influence which science and capital may exert upon agriculture; to examine some of the effects which the growth of manufactures, commerce, and public improvements, produce upon the agricultural interest; and to briefly discuss the interests, prospects, and policy of the farmers of Middlesex.

In estimating the importance of science and capital to agriculture, we learn, from the lessons of experience, that a fertile soil alone does not carry agriculture to perfection. Should we seek the spots where agriculture gives the largest and most remunerative returns for a given space, we should find them not on the fertile banks of the Nile or the Ganges, the rich plains and valleys of Sicily, or the prairies of the West, where a virgin soil and low prices attract so many youthful cultivators. Far otherwise. You must look to Flanders and Holland. There, science and capital combined, in a harsh climate, have rescued vast wastes from the ocean, and converted sterile marshes and barren sands into productive fields, the very garden of Europe; or look at England, our parent land, where the same powerful combination has transformed the sandy plains of Norfolk, for centuries abandoned to the rabbit, into luxuriant fields of wheat, clover, and turnips; and changed the fens of Lincolnshire, which encircle the old town of Boston—fens, for centuries, the resort of wild-ducks, geese, and other birds of passage, into the granary of England.

The soil of Belgium was originally sand and clay alone. It has been enriched by ashes and composts, until it has become a rich, black, loamy mould. Tanks are provided on the farms for liquids, and each cow is estimated to produce ten tons of solid, and twelve of liquid manures. Every expedient is resorted to, both to increase their quantity and to improve their quality. Rotations of crops are followed; and the result of these efforts is, that Belgium sustains a population of 350 people, 67 cattle, and 17 horses, to the square mile; usually raises her own breadstuffs, and exports wheat, madder, flax, wool, and bark, to other parts of Europe. In Holland, where the dike, steam-engine, and wind-mill are employed to prevent the incursion of the sea upon land gained from its bosom, a population of 214 to the mile is sustained, and large exports made of butter, cheese, and other agricultural products. The average value of land is nearly \$300 per acre, although it is burthened with oppressive taxes.*

* Holland annually exports 38,000,000 lbs. of cheese, and 18,000,000 lbs. of butter. The average rate of the land-tax, on farms, is 10 to 14 guilders per arpent—about \$3 00 per acre.

To learn the causes of the astonishing fertility and large returns flowing from the conquests of art over nature, we must recur to the history of Belgium and Holland. For centuries they have been the seats of commerce and the arts.

In the eleventh century, Ghent and Bruges, cities of Belgium, were important commercial towns, and supplied the courts of Europe with silks and tapestries. In the fifteenth century, Ghent contained fifty thousand weavers, and Bruges and Antwerp had each two hundred thousand people, and were the marts of the civilized world. In the sixteenth century, the harbor of Antwerp often contained two thousand five hundred vessels; her gates were daily entered by five hundred loaded wagons; and her magnificent Exchange, still standing, erected before the discovery of America, was attended twice a day by five thousand merchants.

The country was covered with roads and canals; capital and art were applied to agriculture. The effect of a population, growing in numbers and wealth, was to stimulate the efforts of those engaged in agriculture; and, for six hundred years, commerce, manufactures and agriculture grew together, until the latter attained a height which has survived the wars and revolutions which nearly prostrated the former.

Holland, too, has been, for centuries, the seat of manufactures, commerce, and wealth. In the seventeenth century Holland was the great naval power of the age, and controlled the trade of the Indies. Her shipping, 900,000 tons, equalled that of all the other powers of Europe; and her great cities, united together, and to the Rhine by canals, the admiration of Europe, were each devoted to some great branch of manufactures or commerce. From these agriculture received a mighty impulse.

When England became the queen of the seas, and the patron of the arts—when she had invented the steam-engine and the spinning-jenny, and applied her beds of coal to the production of iron—when she had opened her canals, and begun to build docks and harbors, a stimulus was given to agriculture, and wealth and science were drawn to districts which had lain dormant for centuries. They were both applied to the improvement of land. Soils were analyzed; tools of all kinds improved; lime and plaster transported by canals to the spots that required them; bone-dust collected from the battle-fields of Europe, from La Plata and California; dikes and drains constructed; oil-cake imported, even from our county of Middlesex, to fatten her cattle and enrich her soil; and vessels were sent around Cape Horn to procure the excrement of birds. The produce of agriculture has been thus more than doubled, and her inhabitants carried to an average of 300 per square mile, consuming food and occupying houses vastly superior to those of their fathers.

England and Wales, with less than 60,000 square miles of surface, sustain 18,000,000 people, 26,000,000 sheep, 4,000,000 head of cattle, and 1,500,000 horses, in a condition unrivalled in any section of the world, and produce annually, beside, at least 240,000,000 bushels of breadstuffs.

The county of Lancashire, the great seat of the cotton manufacture, the Middlesex of England, presents results more striking than those of the island at large. It has increased with a rapidity almost unexampled in the history of industry, and exhibits a population of 1,800,000, or 1,000 to the mile, on a space of but 1,800 square miles, an area barely equal to our two counties of Worcester and Middlesex.

Lancashire, like our Middlesex, is studded with factories, and covered by a net-work of railroads and canals. Its soil, like that of Middlesex, is devoted principally to the culture of grass, fruit, and esculent vegetables, while its breadstuffs are drawn from other districts.

There would seem to be something congenial to agriculture, in the very atmosphere of commerce and manufactures; for we read in the history of Carthage, by its conquerors, that around that ancient seat of trade and manufactures, and under the burning sun of Africa, there were clustered beautiful farms and country-seats, canals, olive-trees, and vineyards.

The achievement of science and capital in the agriculture of the old world, lead us to appreciate aright their value, on this side of the Atlantic, and to take a more correct view of their importance and uses. A few rash experiments here, guided by no practical skill, may have led some to distrust theories and the value of book-learning. Others have looked with a jaundiced eye on the accumulation of wealth—have regarded its votaries merely as a mercenary race, a class useless to the community, instead of viewing them as stewards accumulating property for the benefit of society; forgetful that their wealth, whether invested in *banks, ships, docks, or avenues of trade*, or in *loans upon land*, is giving an impulse to the whole country.

To insure the progress of agriculture, it is for science to indicate the path, to suggest the elements of the soil, to point out its deficiencies and the appropriate remedy, to present the improvements in tools, fences, and buildings, and the discoveries of art; but in vain would she place her finger upon these, unless her ally, capital, should follow, and furnish the stocks, tools, structures, and fertilizing substances, and aid in creating avenues from the farm to the market.

There was a time, but few years since, when the credit of our State and country, now so elevated, was deeply depressed—when the bonds of Massachusetts found no purchasers. Science had planned that great avenue which makes Boston one of the seaports of the West; but means were wanting. By whom, think you, were they furnished? By those unfortunate Irishmen who seek here a refuge from bad laws and national calamities, who toil upon our public works, and to whom we owe all our canals, wharves, and railroads.

The quiet accumulations of these small capitalists in the savings' bank of Boston, absorbed more than half a million of our bonds, and finished the Western Railroad.

The progress of cities, towns, and manufactories, has created wealth, nurtured science, and aided their diffusion. Towns and cities have reacted on the country, have created a demand and liberal price for its products, and furnished it with the means of fertility, while towns and cities may trace their expansion to commerce and the arts.

Commerce and manufactures have been fostered and stimulated by public improvements, which have collected and distributed their materials and products. The alliance thus cemented between the ship, the canal-boat, the car and the spindle, the forge and the plough, has created great and prosperous nations, and verified Lord Bacon's oft-repeated theory, that three things are essential to the prosperity of a country—*fertile fields, busy workshops, and easy communication*.

While, in England, the Netherlands, and portions of France, Germany, and Italy, all these advantages are enjoyed, there are extensive regions in

which the fertility of nature is neutralized by the want of facilities of intercourse ; and for centuries past, commerce and manufactures, population and agriculture, have languished or receded. When the Council of Castile were invited by an eminent engineer to open a canal from Madrid to the sea, they declined the invitation—coming to the sage conclusion that, if God had designed a navigable river for Madrid, he would have made it himself ; and Spain, estranged from commerce and improvements, has made so little progress, that it has been wittily suggested that, were Adam to revisit this sphere, he would find the face of nature less changed, and feel himself more at home in Spain, than in any other region. While, in England and the Netherlands, the surplus of one district supplies the deficiencies of another, in Spain, it is not unusual for one province to be desolated by famine, while an excessive crop in another has filled the granaries to overflowing, and made wheat comparatively worthless.

In Spain, land is stationary, or declining with the decay of towns and villages ; but near the towns and cities, the canals and railways, of the flourishing regions we have described, land rises in value with the improvement of cultivation, with the increased prices for its products, and with the progressive demand for sites for warehouses and country seats. It is enriched by its very vicinity to the centres of population, by the fertilizing materials it derives from them, whose weight and bulk forbid their carriage into remote districts. In this respect, lands in populous districts have a decided and preponderating advantage over those of the interior.

The progress of improvements, and the growth of towns in the United States, are producing the same effects we have witnessed in Europe.

The Erie and Champlain Canals, with the application of steam to the Hudson, have created, in the last twenty years, great cities at Buffalo, Rochester, Utica, Albany, Troy, and Brooklyn, and made New York the third, if not the second commercial city of the world.

Singular as it may seem, many influential residents in the city of New York long opposed the Erie Canal. Her leading editors ridiculed the “big ditch” of Clinton—unable to distinguish, through the dim vista of the future, the stately warehouses, palaces, and churches, elegant avenues, and the forest of masts, with which it was to embellish the Island of Manhattan.

Orange and Dutchess Counties anticipated that the wheat and dairy produce of the Genesee Valley would depress their farms, although more contiguous to the market of New York. On Long Island, a gentleman of my acquaintance attended an election, where his friend, the successful candidate, was chosen on the ground of his opposition to the canal.

But the farms of Orange and Dutchess still maintain their ascendancy ; and such was the impulse given to Long Island, by the growth of New York after the Erie Canal had opened—such the increased demand for corn, hay, fuel, poultry, and other produce, that my acquaintance, on a second visit, found his friend again a candidate, on the ground that he had become a warm supporter of the Erie Canal.

If canals have contributed to such results on both sides of the Atlantic, what is it reasonable to expect from the discovery of railroads ?—an improvement rapidly superseding the “*ne plus ultra*” of the preceding age.

The same power which draws a ton upon a turnpike, draws fifteen upon a level railroad, and with four-fold the speed. The railroad combines the properties of the coach, the wagon, and the race-horse. With six-fold

the speed of the canal, it regards not the snows of winter, and scales mountains impervious to canals. How far is it essential to our seaports and factories? They require a constant and uninterrupted communication, which canals cannot give, as the ice closes them nearly half the year.

What do those factories demand? The cotton and wool of distant States and countries; the iron and coal of Pennsylvania and Cape Breton; the lumber and lime of Maine; the indigo and drugs of India; the oil of the Pacific and of Africa; and the factory girls of all New England. Obliterate the railroads, and would their business be worth pursuing?

Obliterate the railroads, and would not half of Boston go to decay?

At the commencement of the railroad system in New England, some fears were entertained that the effect might be injurious to the farms which encircle our metropolis.

This opinion was countenanced, for a brief period, by the competition of the new milk farms along the line of the Boston and Worcester Railroad, with the dairies in the suburbs, and by the depression of agricultural products through the country, which followed the commercial revulsion of 1837.

Doubtless, some changes were effected; but have not the suburban dairy farms been required for building lots, at treble prices? Are not the streets of the metropolis extended far into the country, on seven great lines, and is not land sold by the foot, more than ten miles distant from the Merchants' Exchange of Boston? and are not farms, once supposed to be ruined by the location of railroads, like the Winship and Hunnewell estates, in Brighton and Newton, at least quadrupled in their value? Have they not shown that the railroad is by no means the road to ruin? Do not milk, butter, corn, oats, pork, and beef, command remunerating prices? —the latter, in particular, when you cannot buy a sirloin in the Quincy Market under a shilling a pound. If, occasionally, produce from the interior competes in our market with that of farms in the vicinity, does it effect more than a change of use, or of the course of cultivation, and does not the increased size of the market draw in the market-wagon from a larger circle? Or, if any temporary depression occurs, are not farms, in the outskirts of the counties around Boston, more elevated than the adjacent farms are depressed?

What would be the position of the farms around Boston to-day, if our railroads and inland marts had no existence, were we to banish the hundred millions of wealth and the one hundred thousand people, which have accumulated in and around Boston since the first movement in railroads, and send them to New York and New Orleans, where they would have been planted, if such movement had not been made?

Do the one million of tons now moved annually by the railroads out of Boston, doubling once in four years, give no impulse to industry in and around the city? or do these great works of amelioration, which bear industry, the only marketable commodity of the poor man, to the best theatre for its exercise, give no increased value to industry itself?

Does not every house erected in and around the city, and every ship added to its rolls, require nearly an acre of land to supply its immediate demands, and is not every such house and ship a market? and are not every drain, vault and chimney, a source of fertility? Are or are not the effects which attend the progress of the railroads of Massachusetts injurious

or beneficial to the county of Middlesex, and what are its position and prospects with reference to agriculture ?*

Our county of Middlesex embraces an area of 800 square miles ; and its population, rapidly increasing since the census of 1840, may now be safely estimated at 120,000, or 150 to the square mile.

The surface presents no high mountains or deep valleys ; but, diversified by hill and dale, meadow and plain, and watered by four large rivers, the Merrimac, Nashua, Concord and Charles, offers numerous water-falls and sites for manufactories.

Although modern art has to a great extent superseded human labor, the constant progress of manufactures in Middlesex creates a demand for operatives far exceeding the home supply. Prolific as the county may be in one branch of production, that of boys and girls, all New England, and even New York, Nova Scotia and Canada, have contributed to its supply. More than twenty-six thousand operatives are now assembled in Middlesex from that wide region which lies between the Hudson, the St. Lawrence, and the sea. The annual produce of their industry appears in the cottons and woollens of Lowell, Waltham, Dracut, Billerica, Shirley and Framingham ; in the ships of Medford ; the lead of Concord ; the soap, candles and glass of Cambridge ; the cabinet-ware and leather of Charlestown, Woburn and Reading ; the paper of Newton and Pepperell ; the boots and shoes of Natick, Holliston, Hopkinton, Stoneham, South Reading and Malden ; and the varied manufactures of many other flourishing towns.

In manufactures, Middlesex annually produces \$23,000,000, and is, in this great department of industry, the leading county of the State and of the Union. The annual products of manufactures, in this single county, are more than double the average exportation of breadstuffs from the whole Union, and would pay far more than a moiety of all the flour, grain and corn exported during this season of famine. Rapid as has been the improvement of agriculture, and wide as has been its expansion in new counties and States during the last twenty years, the advance of manufactures has been quite as rapid ; and, if there be truth in the remark of a great British statesman, that every loom stopped in England stops half a dozen ploughs, how many American ploughs have the looms of Middlesex set in motion ?

The county of Middlesex is alike distinguished by railroad enterprise. It is the great railroad county of the State, being intersected by the four inland lines from Boston to New York, Vermont, New Hampshire and Maine, beside various cross-routes and branches.

The lines already constructed or chartered in this county, and sure to be finished, exceed two hundred miles in length, furnishing one mile of rails for less than four square miles of surface. So numerous have these lines become, that the average distance between them does not exceed four miles, and the population of the county live within an average distance of one mile from the iron-way.

The combined effect of manufactures and railroads has been to furnish

* The effect of railroads, thus far, appears to be to ameliorate the condition of those residing at a distance from seaports, and to elevate the value of their farms and products, without depressing property nearer to the great markets. The increased resources of the interior are illustrated by the fact that, in August last, nearly \$3,000,000 was subscribed in the country for a short railroad from Manchester to Lawrence ; while it took nearly twenty years, half a century since, to raise three-quarters of a million to construct the Middlesex canal.

Middlesex with numerous markets. Within its area are the three cities of Lowell, Charlestown and Cambridge, of recent growth, with an aggregate population of sixty thousand, and at least a dozen towns with a population varying from two to five thousand each.

Close to its borders are the embryo cities of Lawrence, Fitchburg and Nashua. Even Assabet, too, in our immediate vicinity, gives promise of a future city; while Boston, the populous and wealthy capital of New England, touches the southeastern angle of the county.

With such markets, and facilities for communication, which nearly equal those of the most prosperous districts of Europe, and are surpassed by none in America, what are the agricultural products of Middlesex, and how far are they capable of expansion?

Their aggregate amount, by the census of 1845, is but \$2,300,000—an amount large in itself, and yet but one-tenth of the produce of its manufactures; and may we not safely infer from this disparity, if from no other obvious facts, that the agricultural resources of the county are not yet fully developed; and that, when developed, the markets of the county require a vast amount of products not raised within its limits, and furnish an overplus of clothing and other manufactures, which may with advantage be applied to their purchase?

If we scan the agricultural returns of Middlesex, for the year 1845, we find its stock as follows:—

34,728 head of cattle, or.....	43 to the square mile.
9,776 head of horses, or.....	12 " " "
4,428 head of sheep, or.....	6 " " "

Let us contrast these returns with those of England and Wales. This highly-cultivated country exhibits, in an area of less than 60,000 sq. miles—

4,000,000 cattle, or.....	67 to the square mile.
1,500,000 horses, or.....	25 " " "
26,000,000 sheep, or.....	450 " " "

If we reduce these to one standard, it must be apparent that Middlesex, with all her improvements, does not sustain one-half the amount of stock to the square mile which is reared by England and Wales.

While we concede to England and Wales some superiority in soil over Middlesex, we must not forget there are barren mountains, both in Wales and the Northern districts of England; that a vast extent is there devoted to wheat and barley, to preserves for game, and ornamental parks; and may we not, then, safely infer that our county is competent, under improved husbandry, to double or treble its stock of animals?

What are the cereal and vegetable products of Middlesex? The census of 1845 apprizes us that Middlesex produces, in round numbers:—

427,000 bushels of corn and grain, worth	\$264,000
2,174,000 bushels of esculent vegetables and fruit.....	554,000
78,000 tons of hay.....	777,000
Milk, valued at.....	153,000
Butter, valued at.....	163,000
Cheese, eggs, poultry, honey, berries, &c.....	34,000
Stock sold estimated, as in England, at one-fourth of the whole.....	216,000
Wood and charcoal, products of forests.....	187,000
Total.....	\$2,363,000

May we not anticipate from improved husbandry, the increase of cattle, and consequent growth of manures, a large increase in the amount of some of these productions?

The tables to which I have adverted, gleaned with much care from the census of 1845, are fraught with interest to the farmer of Middlesex. Let us glance at some of the varied lessons which they teach him.

First. That the principal products of his industry, vegetables, fruit, hay, milk and fuel, or nearly three-fourths of the whole, are of such perishable or bulky character, as not to admit of easy transportation to his market-towns from the remote interior.

His close vicinity to the market enables him to supply it with the least cost, to avail of the highest prices, and to carry back to his farm a return-load of enriching substances; while the farmer of the remote interior would find his profits in a great measure absorbed in the cost of compressing of hay, the deterioration of milk and vegetables, and the increased expenses of conveying all to market. This advantage adds to the value of a Middlesex farm, and holds out to the Middlesex farmer a strong incentive to exertion.

Second. These tables teach us that nature has peculiarly adapted Middlesex for those bulky products which are most appropriate for its position. While it is prolific in fruits, roots, fuel, grass and milk, its supplies of grain, corn, pork, wool, butter and cheese, which admit of transportation from a distance, (for the product of acres may be compressed into a single car,) are moderate in the extreme. Middlesex plies at least 400,000 spindles. She raises not one pound of cotton. Her 4,428 sheep would not supply her spindles with wool for a day, nor furnish her population with one annual dinner of lamb and another of mutton. Her sheep, too, are annually diminishing, giving place to milch-cows and cultivation; and she must depend on the interior for both wool and mutton, both indispensable to her comfort and prosperity.

Third. With respect to breadstuffs, Middlesex produces, annually, but 42,000 bushels of wheat, corn, rye, oats, barley, and buckwheat, not one-third enough to supply her own population, to say nothing of her adjacent markets. Her whole annual production will barely suffice to give each horse in the county half a peck of corn per day for his sustenance, and no generous or judicious farmer can think of allowing less. The annual wheat crop of Middlesex, but 1,952 bushels, would provide but one treat of doughnuts for the good people of the county, and all the pork we can afford to raise will scarcely suffice to fry them and dress those fresh codfish, mackerel and halibut, which Providence has placed around our shores, but denied to the prolific regions of the West.

For pork and breadstuffs, and, I may add, for butter and cheese, as the railroads are converting all Middlesex into a milk farm, the county is dependent on the remote interior.

Let us glance for a moment at a single county of the West, about two-thirds the size of Middlesex. The county of Genesee, New York, by the census of 1840, exhibits 1,940,000 bushels of grain and corn, 154,000 sheep, and 49,000 swine. As a Middlesex farmer, I see nothing to regret in this excess, or to tempt me to exchange my acres in Middlesex for as many or more in Genesee. Nature has bestowed different blessings on different sections of the Union. If at the West she has placed her layers

limestone beneath a fertile soil, and adapted it to wheat and corn, or

spread her beech-nut forests over the hills to furnish mast for the swine, and created pastures congenial to the sheep, she has placed us near the ocean, the great highway of nations ; she has shaped out ports and harbors for commerce ; rivers to impel spindles ; has clad our rocky hills with forests for timber or fuel ; and, if she has planted boulders in our fields, a market exists for them in the wells, cellars and walls of our growing towns and cities. She has given us land which enlightened industry will adapt to our position, and endued us, I trust, with sufficient energy to make it available.

Within the last twenty years agriculture has made great advances in Middlesex ; meadows have been reclaimed ; drains have been opened ; beautiful orchards have been planted ; tasteful houses and improved cottages and barns been constructed ; the races of animals have been improved ; the sources of fertility have been guarded ; land more highly cultivated ; and the society I have the honor to address has, no doubt, contributed to the progress of agriculture.

But why should not further and more rapid progress be made, and why should not Middlesex present as bright an aspect as the most productive counties of England ? Why should we not become the pattern county in agriculture as well as manufactures ? We have markets for our produce nearly, if not quite equal, to those of England. The price of hay, straw, milk and vegetables here, is quite as high as the average prices of England. In Indian corn, with its masses of fodder, which will not ripen in England, we have decided advantages. In the apple, congenial to our soil, but which does not attain perfection in England, we are also before her. In addition to all this, every frugal and industrious man may here own his farm in fee, is free from the burthen of feudal tenures, from oppressive taxes, and poor-rates ; and may worship God, educate his children, and vote according to his conscience—a privilege not always accorded to the English tenant.

If our land be less fertile than the soil of Illinois or Wisconsin, the crop is not absorbed in the cost of transporting to market, and we have no occasion to dread the fever and ague. If our climate is harsh, the wind from the ocean invigorates and animates our frames, and our wives are not saddened in the rude cabin of the lone prairie by the remembrance of an early home. Here we have intelligence, science, capital, and the arts of life. Around us are schools and seminaries of learning for our children, and in our midst is that venerable institution, Harvard University, the mother of piety and learning, nourished by the beneficence of the honored dead.

And Middlesex, too, has one living son who defers not his munificence until wealth loses its value ; until the candle of life flickers in the socket ; who, amid a career of usefulness and honor, which has signalized advanced the great interests of the county, devotes a fortune to the advancement of the arts. Middlesex will alike appreciate and enjoy the noble donation of Lawrence to found a school for the practical sciences, to create engineers, miners, machinists and scientific farmers, to form ingenious heads "that shall guide the hard hands ever ready to toil on her hard materials."

But while the farmer of Middlesex enjoys these advantages and incentives to exertion, does not much still remain for him to accomplish ? Do we not occasionally see half-tilled fields where the plough has barely skimmed over the surface, and little or no aid has been given to nature ? Does

not the waving grain, by its light and unfilled heads, sometimes indicate the deficiencies of the sower? Do not some mowing-fields, brown with their unprofitable herbage, and checkered with white weed, mourn the absence of plaster, compost, or ashes? And when we reflect that a single acre of enriched pasture is competent to maintain a cow, is not our sympathy often excited for that useful and most respectable animal, as well as for her neglectful owner, when we see her threading her weary way through barren acres where not a single blossom of white clover perfumes the air; now roving through alder-swamps; now climbing hills covered with birches or brambles; at times lost amidst the thicket, and recognized only by the tinkling bell.

Again, let me ask, is not the county studded with deep meadows and swamps where the leaves and decaying vegetables of the country, swept down from the hills and plains by rain, have accumulated for centuries?—where the sounding-rod of the engineer discovers trunks of trees at the depth of twenty or thirty feet below the surface?—are not these mines of vegetable mould for enriching the upland?—may they not be converted into luxuriant grass-fields and pastures, almost insensible to drought, and enduring in their fertility?

Are there not rocky hills, which have been wastefully stripped of wood, unfit for cultivation, where the forest should again be tempted to rise, since it flourishes among ledges and rocks, twining its roots around them, and drawing potash from the decomposing granite? Would not such transition from a waste of rocks to wood-crowned eminences embellish the county, as well as provide timber and fuel?

Is not the importance of this apparent when we consider the inducements offered by groves for country-seats, and remember the high prices of ship-timber, during a season in which a single white oak of Middlesex has produced \$100 for timber? Neither must we forget that the locomotives, which will traverse the county when the railroads which are now chartered are finished, will require the annual produce of at least 40,000 acres of forest.

May not our nurseries and orchards be extended, and new varieties of fruit be introduced, and all our lands be more highly cultivated, with increased profit to the husbandmen?

Are not the sewers and drains of our towns often suffered to run to waste, when thousands of acres might be fertilized by their contents?—and are not hundreds of tons of oil-cake, bones and ashes, annually shipped from the county to enrich distant shores, which could be used profitably at home? These are questions which demand the consideration of the Middlesex farmer. If he can solve these problems aright; if he can justly appreciate and avail of his position; if he will endeavor to improve it instead of complaining of the competition of those who can best furnish what he cannot well supply; if he possesses that generous spirit which delights to see others prosper while he prospers himself, a Middlesex farm offers a suitable field for his exertions.

Does he aim at a life useful and beneficial to his race!—let him remember that every acre that he reclaims, every blade of grass that he bids to grow where none grew before, ameliorates the condition of his fellows.

Does he aspire to wealth!—let him reflect that his gains, if less brilliant and striking than those of trade and the professions, are more certain and

uniform ; and that gradual improvement of his estate, and the silent but continued rise in the value of property, promise eventual prosperity.

Is he tasteful !—he will here find a theatre for taste in woods, orchards, and flowers, and the design of his buildings.

Is he ambitious !—here are obstacles to be surmounted, subjects to be controlled, races to be improved, a kingdom in miniature to be governed by wise and wholesome regulations.

Is there anything warlike in his composition !—if his country does not demand his services, let him bury his steel in the boulders, and shatter the rocks that deform his ground with gunpowder.

Would he make conquests and achieve victories !—here weeds and water are enemies ; here uncultivated plains are his Mexico, and deep fens and morasses his Texas and California ; and no philanthropist, or casuist, will complain of his conquests, should he subdue them. Let him guard against the ambush of the crow, the wire-worm, the squirrel, and the fox ; and repel the invasion of the blight, the white weed, and the sorrel. He shall see his battle-fields not stained with blood, but blossoming with clover ; and when, in his green old age, he points out to his children his Palo Alto, Buena Vista, Cerro Gordo, and Cherubusco, and recounts his *bloodless* achievements, he shall feel greater satisfaction than if his victories had been saddened by the sacrifices and tears of thousands !

Art. II.—THE COTTON TRADE.

THE course of the cotton trade, during the past season, has been affected by two causes, whose influence so nearly balanced each other that prices have varied but little from what was anticipated at the beginning of the year. In November and December the rates advanced, in consequence of the certainty of a short crop ; but from January onwards, although the deficiency in the receipts was much greater than had been expected, prices remained stationary, because of the scarcity of food in Europe, which advanced the rates of freight, and diminished the consumption of the manufacturers. Both these causes were anticipated, but they came with unlooked-for violence. No one thought that the price of corn, in England, would rise from 50 shillings per quarter to 102, or that our receipts of cotton would fall to 1,780,000 bales. Either one of these causes, by themselves, would have created the most disastrous revulsions ; but, coming together, they have kept the market steady and uniform. According to the table of Wright & Lewin, the New York prices for fair Orleans cotton have varied, from January to September, only $1\frac{1}{4}$ cents, which is less than 15 per cent on the lowest rates. The new season opens with a considerable reduction in prices. The prospect of an average crop, the commercial embarrassments in Europe, and the dull state of trade in the manufacturing districts of Great Britain, have already brought down prices nearly to their average rates, in spite of the low stocks and the abundant harvests. Any greater decline will stimulate the consumption, so that it would exceed the supply. In estimating, therefore, the demand for 1842, we must expect the average rates of the last six or eight years to rule the market, and compare the supply with the demand that will probably exist at these prices. Since the year 1838, there has been exported from the

United States 5,743,000,000 of pounds of cotton, according to the official reports of the government, and the estimated value of all has been \$486,000,000 ; giving an average price of 8½ cents per pound. The price has not yet (October 15th) fallen to this average ; nor can it remain there without increasing the consumption, so as to lessen the small stocks now on hand, unless the continuance of the present mercantile embarrassments, or a serious advance in the price of food, should counteract the effect of low prices of cotton. The present stocks are very low, and will not bear further reduction, without raising prices above their average. The stocks at Liverpool were, at the last accounts, 275,000 bales lower than last year ; but the diminished consumption for the rest of the year, and the increased shipments from the United States and the East Indies, will probably bring down this deficiency to 150,000 bales, on the 31st of December. The amount on hand, for several years past, has been as follows :—

Years.	Liverpool stocks. <i>Bales.</i>	Weekly deliv's. <i>Bales.</i>	Weeks' cons'n.	Years.	Liverpool stocks. <i>Bales.</i>	Weekly deliv's. <i>Bales.</i>	Weeks' cons'n.
	<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>		<i>Bales.</i>	<i>Bales.</i>	<i>Bales.</i>
1838,	248,000	22,800	11	1843,	654,000	24,500	27
1839,	206,000	19,000	11	1844,	750,000	25,500	29
1840,	366,000	22,900	16	1845,	885,000	27,900	32
1841,	430,000	20,300	21	1846,	546,000	27,900	19
1842,	457,000	21,400	21	1847, about	400,000	about 22,000	18

Now, any serious diminution of these stocks, with the fair weekly consumption anticipated for the next year, would advance prices ; and, as the supply will not much exceed the probable demand, a fall below the average rates is not to be expected.

We will now consider the supply, and begin first with the American cotton. The average crop of the United States, for the last five years, has been 2,137,000 bales ; and, if the present season had been favorable, the amount planted would have produced over two millions and a half. The high prices of last season have extended the cultivation to the utmost limit. The small farmers, who usually confine themselves to corn, have this year a patch in cotton ; and the large planters, remembering the disasters of the past, have planted more than their hands could pick out in a favorable season. The late spring, and the heavy rains, and the boll-worm, and also the caterpillar, have made sad inroads in this large planting ; but still enough is left to reward the labors of the planter with an average yield. In South Carolina and Georgia, the rains have stimulated the plant in the rich lands, so that it has run too much to weed, and produced but a small amount of fruit. The boll-worm has been unusually abundant. The picking began very late, so that there has not been enough time for the forms to mature, before the cold weather interrupted their growth. The amount planted has, however, been very large, and the poor lands are doing very well. The hot sun and dry weather, since the 10th of September, have been very fine for maturing and opening the bolls. These causes will bring up the crop very nearly to the amount of last season, and some good judges estimate it fully as much. On the Chattahoochee, where the greater portion of the Florida crop is produced, the disasters from the worm and the rain have been more serious, and nothing like an average crop is expected. But the injuries last year were as great, and about the same receipts are expected. From Florida proper a considerable increase may be anticipated. From all parts of Alabama and Mississippi, which send their cotton to Mobile, the reports have been discouraging ; but in the Western part of this district, the disasters, though

serious, have not equalled those of last year. A full crop would give Mobile 600,000 bales, while the receipts, last season, only reached 320,000. The recent fine weather has checked the worm, opened the cotton, and given the planters a fine opportunity to gather what is produced. The West and Southwest part of this section suffered last year very much from the caterpillar, and a considerable increase may, therefore, now be expected. From the Eastern part the reports are a little more favorable than last year. The receipts at Mobile will, probably, increase 100,000 or 120,000 bales. From every part of the country, which sends its cotton to New Orleans, there is a promise of an average crop. Nowhere, except in Texas, is the yield abundant; but everywhere the prospect is good. Leaving out last year, the average receipts, at New Orleans, not including Texas, have been, for the preceding four years, 972,000 bales, and, for the present season, they may be put at a million. The amount from Texas will be much greater than in any former year. For the whole country, I would estimate the crop as follows:—

	Receipts, 1845. Bales.	Receipts, 1846. Bales.	Receipts, 1847. Bales.	Est. for 1847. Bales.
New Orleans and Texas,	950,000	1,064,000	714,000	1,050,000
Mobile,.....	517,000	422,000	324,000	425,000
Florida,.....	189,000	141,000	128,000	155,000
Georgia,.....	295,000	195,000	243,000	245,000
South Carolina,.....	426,000	252,000	350,000	350,000
Other places,.....	38,000	27,000	20,000	25,000
Total,.....	2,405,000	2,101,000	1,779,000	2,250,000

The receipts from India, which had been falling off for several years in consequence of low prices, and the repeal of the discriminating duty in England, have increased during the present year; and, as the stimulus of advanced prices has operated on the planting of the new crop, an increase may be anticipated in the imports for 1848. India is able to produce a large supply of cotton. The quality is inferior; but, with remunerating prices, the quantity would soon be doubled, or, perhaps, quadrupled. The receipts for several years past, and some of the circumstances which have affected them, are contained in the following table:—

Years.	RECEIPTS.		
1825 to 1833.....	Average.....	73,000	Declining prices.
1833 to 1841.....	"	140,000	High prices.
1841 to 1843.....	"	265,000	Chinese war.
1843 to 1845.....	"	210,000	Peace, and low prices.
1845 to 1847.....	"	125,000	Low prices, and repeal of duty.
1846.....	Six months.....	44,000	" " "
1846.....	Sept. 17, Liverpool	38,000	" " "
1846.....	Whole year.....	95,000	" " "
1847.....	Six months.....	87,000	Advance in prices.
1847.....	Sept. 17, Liverpool	76,000	" "
1847.....	Whole year, about	190,000	" "

and for 1848, I would anticipate about the same as 1847; because, although prices are not so high, the production has been stimulated by the prices of the present year, and the decline is not so great as to prevent shipments to Liverpool and London.

The receipts in Great Britain from other places, besides India and the United States, are small, and nearly stationary. The following has been their amount for the last six years:—

Years.	Bales.	Years.	Bales.
1841.....	165,000	1846.....	158,000
1842.....	124,000	1846,... Sept. 17, Liverpool	117,000
1843.....	165,000	1847,	71,000
1844.....	197,000	1847....., about	120,000
1845.....	201,000	Average, for six years,	168,000

The falling off has been principally in Egyptian, which has been diverted more to the French market. The average amount may be expected for 1848. The whole supply, from all these sources, will then be as follows :—

SUPPLY.	1846.	1847.
	Bales.	Bales.
Crop of the United States.....	1,780,000	2,250,000
Receipts in Great Britain from India.....	190,000	190,000
Receipts in Great Britain from other places.....	120,000	170,000
Total supply.....	2,090,000	2,610,000

Turning now our attention to the demand, I begin with the United States. Our consumption has been regularly increasing for many years past. It has received a check during the last year, and this cannot be attributed to the high prices, as the country has been unusually prosperous, but rather to the tariff of 1846. This has introduced an immense supply of English goods at low prices, and thus, probably, checked the growth of our domestic manufactures. It may be that the stocks in the hands of the consumers are smaller than usual, because of the high price of cotton ; and if so, this will account for the want of increase in the last year's consumption. But if the effects of the new tariff have not as yet been really felt by our spinners, we may the more certainly look for them in the next year. The anticipated scarcity of money, on account of the Mexican war ; the small amount of our future exports of breadstuffs, compared with last year, added to the low prices of English goods, forbid us to expect any increase in the American demand for 1848. Our consumption has been, for four years past, as follows :—

Years.	Bales.	Years.	Bales.
1844.....	347,000	1846.....	423,000
1845.....	389,000	1847.....	428,000

and, for 1848, I cannot estimate it higher than 440,000 bales.

The consumption, in France, of American cotton, has been, generally, very regular ; but the high prices of food, and of cotton, have caused a great falling off in the deliveries of the present year. The monetary difficulties there, will prevent any great activity in the next season ; and, though the crops are good, and the prices of cotton likely to be moderate, the embarrassments, past and present, will not warrant the expectation of the full average demand. The following have been the amounts of the deliveries of American cotton, in France, for several years past :—

Years.	Bales.	Years.	Bales.
1842.....	366,000	1846.....	345,000
1843.....	351,000	1846..... eight months,	276,000
1844.....	336,000	1847..... eight months,	168,000
1845.....	351,000	1847..... whole year, about	230,000

The fall in cotton, and the good harvests, will help this consumption ; but I would not estimate it higher than 300,000 bales for 1848.

In Great Britain, the falling off in the consumption, for the present year,

has been immense—exceeding that of any former year. The Liverpool deliveries to the trade, which comprise more than 90 per cent of the whole British consumption, show the decline to have been greatest in the early part of the year; but it has stopped increasing, for the last two months, and is now stationary:—

	Total sales to the trade. 1846. <i>Bales.</i>	Total sales to the trade. 1847. <i>Bales.</i>	Weekly deliveries. 1846. <i>Bales.</i>	Weekly deliveries. 1847. <i>Bales.</i>
April 1.....	381,930	230,240	29,400	17,700
June 3.....	617,560	429,410	28,100	19,500
July 30.....	877,580	672,870	29,200	22,400
Sept. 17.....	1,118,500	800,350	30,200	22,200

and the total consumption, for the United Kingdom, has been, according to "Burns' Commercial Glance":—

	Bales.
For the first six months of 1846.....	832,000
And for the first six months of 1847.....	644,643

In spite of the commercial difficulties, a little amelioration may now be expected; but the whole consumption will not, probably, exceed 1,250,000 bales, for 1847, against 1,570,000 in 1846, 1,560,000 in 1845, 1,400,000 in 1844, and 1,390,000 in 1843. This great decline has been principally in the home demand, as the exports of cotton goods have nearly reached their usual average. The amounts taken by the Western countries of Europe, are the only ones that have seriously fallen off; while this deficiency has been, in part, made up by the increase to the United States, and other countries, out of Europe. If we estimate the weight of calicoes, both printed and plain, at three ounces per yard, the weight of calicoes and yarn exported, for the first six months of 1846 and 1847, will furnish the following comparison:—

	Lbs.	Lbs.	Lbs.
India and China.....	38,000,000	40,000,000	38,000,000
West of Europe.....	54,000,000	61,000,000	39,000,000
East of Europe.....	19,000,000	16,000,000	16,000,000
United States.....	3,000,000	2,000,000	8,000,000
Other countries.....	26,000,000	24,000,000	30,000,000
 Total.....	 140,000,000	 143,000,000	 131,000,000

The deficiency in the exports, and in the home consumption, is to be attributed to the high prices of cotton and of food. These causes conspired to diminish the exports to Germany, Spain, and Italy; they counteracted each other in Russia and the Levant, and they both tended to increase the exports to the United States. The abundant harvests of the present year, and the moderate prices of cotton, will tend strongly to restore things to their usual condition. They will lessen the pressure in the English money market, and enable the laborer to purchase more largely of the manufacturer. The high wages, caused by the demand for labor on the English railroads and in the iron and mining districts, will stimulate the home consumption, while the relaxation in the English and the American tariffs will keep the export trade in full activity. These causes will not, however, be sufficient to bring the consumption of cotton up to the figures of 1846, because the price is still high, and the embarrassments and failures of the present year will exert an influence on the future. I would estimate the English demand, for 1848, at 1,400,000 bales, which is about half-way between the consumption in 1846 and 1847.

The other demand, out of the supplies I have considered above, cannot be estimated with great accuracy, being somewhat irregular and uncertain. The American and English exports to other countries, and the apparent consumption, for several years past, have been as follows :—

Years.	American exports. Bales.	English exports. Bales.	Stocks on the continent. Bales.	Apparent consumption. Bales.
1843.....	194,000	120,000	149,000	.....
1844.....	144,000	137,000	126,000	304,000
1845.....	285,000	123,000	95,000	439,000
1846.....	205,000	194,000	77,000	417,000
1847.....	170,000 about 150,000	.....	.....	about 330,000

The deficiency this year will, in part, be made up, as in the English market ; and I would estimate this demand, with moderate prices of cotton, at 370,000 bales, for the year 1848. We have now considered the total demand. It is as follows :—

Demand.	1847.	1848.
	Bales.	Bales.
Wants of the United States.....	430,000	440,000
Wants of Great Britain.....	1,250,000	1,400,000
Wants in France of American cotton.....	230,000	300,000
Other exports, from the United States and England.....	320,000	370,000
Total demand.....	2,230,000	2,510,000

By comparing the supply and demand, it will be seen that they promise to be nearly the same. Prices may, therefore, be expected to be near their average rate, neither high or low. If they should fall below this at any time, the increased consumption, with the present diminished stocks, would immediately bring up prices ; while the experience of the last year shows that they cannot be kept higher without stopping the English factories, and thereby decreasing the consumption below the probable supplies. The prospects of the planter are good. A fair crop at fair prices is better for him than a large crop at low prices, or a short crop at high prices. The golden mean is better either than abundance or scarcity.

Art. III.—A NATIONAL SYSTEM OF RAILROADS.

THE railroad has become the great instrument of land commerce and trade. So superior to all other instrumentalities is it, for the transmission of written and printed matter, the rapid and certain movement of military forces, and the interchange of commercial equivalents between distant points of the same country, that no nation can maintain its position among the foremost in civilization without availing itself, freely, of its advantages. This truth seems to have been fully appreciated by all the enlightened governments of Europe. The Parliament of Great Britain has, for many years, legislated for the encouragement of railroad construction in that kingdom, until every part of it is furnished with the means of rapid movement for all its industrial and social exchanges.

Belgium, under the guidance of her intelligent and patriotic king, has completed a system of railroads by which the whole power, moral and physical, of that kingdom, may, within a few hours, be concentrated at any

desired point. It is not an exaggeration to say, that this system of railroads has doubled her power, and the means of enjoyment of her people.

The government of France, the leading States of Germany, Austria, Russia, and the States of the Church, are now putting forth all their available strength to emulate Great Britain and Belgium.

In our own country, whose people are never willingly left behind those of any other nation on earth, in embracing every means which promises to give them a forward impulse in the road to greatness, much has been done by private companies, and something by States, but nothing by our general government. No general system worthy to bring the distant parts of this great land into near neighborhood with each other, has yet been constructed, or, so far as we are aware, contrived. It seems to us that the fullness of time has come for the action of Congress in this matter. The people are ready and anxious to see the power of the general government put forth to aid the construction of these beneficent works. Nothing which Congress could do would so invigorate the hopes and energies of our population. Scattered over a great country, full of natural riches, and admirably adapted to the construction of the railroad, our people need nothing but the completion of a proper system, to set in motion all their energies of mind and body, for the improvement of their condition.

Such a system can only be devised and speedily completed by the general government. Into the hands of that government has been entrusted, for the benefit of the people, an immense body of land, and the exclusive right of raising money by taxing imports. The means of beneficent action are thus provided; and it remains to be seen whether they will be speedily used. If the wishes of the people of the East and the West, the North and the South, are allowed to influence the proceedings of Congress, we cannot doubt that, before another year, the representative body will devise a plan of improvement just to the different sections, and satisfactory to the whole nation.

A great convention met at Chicago on the 5th of July last, to urge upon Congress the improvement of our harbors and rivers. It was not only a great convention in numbers, but it was great in mind and strong in purpose. It was the first step in a movement which will over-ride the little purposes of party politics, and unite in action all who desire to see our government made an instrument of blessings. Its purpose was to concentrate power for securing the improvement of harbors and rivers. This is right. But the people immediately interested in these improvements do not desire to see the action of government stop with them. The coasts of the ocean, gulf and lakes, and our great rivers, should be made safe for commerce; but the majority of our people are but indirectly interested in these improvements of channels, ready-made. The borders of our seas and rivers constitute but a small portion of the whole country. Those who live in interior towns, and those who cultivate the broad expanse of country away from our coasts and large rivers, are not less entitled to the fostering care of government than their more fortunately situated neighbors. To them the speedy transportation of the mail, and the best means of commercial intercourse, are not less important than to others. No system, therefore, which does not operate in favor of the intermediate inhabitants, as well as of the great river and coast population, should be adopted. Equal justice to every section, and to every portion of each section, which a system, national in its character, can dispense, should be observed.

The constitutional power of Congress to construct, or aid to construct, a national system of railroads, rests on firmer and broader grounds than the construction of harbors and the improvement of rivers. For the latter, the power is implied from the general power "to regulate commerce," or "to maintain a navy;" or it stands on a doubtful construction of the express power to raise money to provide for the common defence or general welfare; or it must be brought within the category of the power "to pass laws necessary and proper to carry into execution the specified powers." It would be a proof of vanity or weakness in us to moot the question of the power of Congress to improve harbors and rivers. From the time when legislation under the constitution began, the power has been used by nearly every Congress, and with the express or implied sanction of nearly every president. Most of the opposition has grown out of the real or supposed want of nationality of some of the works for which appropriations have been asked or made.

The constitutional power of Congress to cause the construction of a national system of railroads can scarcely be called in question; but as it has not, so far as we know, been much discussed, a few remarks in relation to it may not be unacceptable.

Under the express power "to establish post-offices and post-roads," Congress is bound to establish, to fix permanently, for the carriage of the mail, the best instrumentality which the improvements of the age have brought into use. The power to establish a post-road is a power to establish the *best* post-road. A railroad is not only the best road, but, on the main routes, it is the only road on which the mail can be carried with any advantage to the public. The power to establish post-roads is not carried out in the late act of Congress which authorizes the postmaster-general to make contracts with the owners of railroads, from year to year, to carry the mail. Such a contract surely *establishes* no post-road. If it establish anything, it is the dependence of the general government on the interest or caprice of the owners of railroads. Afloat on the changeable tide of railroad directorship, the power to establish, as given by the constitution, is so far from being exerted, that it scarcely amounts to more than the power of submitting to the will of these owners. The provision of the act, on this subject, seems to have no warrant in constitutional authority, unless it is derived from the power to make laws necessary and proper to carry into execution the power to establish post-roads. But such a temporary and temporizing law is not necessary or proper, when the direct authority to establish post-roads remains unused. The law seems to have been framed to evade the performance of the duty *to establish* post-roads; and for this reason, if for no other, it should have been opposed by the friends of strict construction as well as by the friends of liberal construction.

That Congress will be compelled to establish railways as post-roads, or give up the mail service, no one can doubt. The time and mode present great practical difficulties which remain to be overcome. The time should not be delayed beyond what will suffice to digest a wise system. This system requires much knowledge, reflection, practical patriotism, and skill, to give it consistency and adaptation to the wants of the great body of the nation. To draw the line between national and local improvements will require many concessions of private opinions and immediate interest. What would be national with a very extended system, might not be so with a plan more restricted to great objects. In the commencement, therefore,

policy requires that such routes only as are of greatest importance, and the nationality of whose benefits are least doubtful, should first be established. But a complete system, embracing those of a second and third class, should be adopted, and new objects, from year to year, be embraced in the classification, as the resources of the different sections of the country are developed. Thus would the legislation of Congress, pursuing for a long course of years one great object, adapt itself to the varying wants of the nation.

Although railroads are the only means by which the Post-Office Department can be made generally beneficial, and the power to construct, or aid to construct them for this one object, is clearly devolved on our national government, there are other national interests which would be promoted by railroads, well worthy the immediate attention of Congress. The most important of these are *internal commerce*, *national defence*, and *repressing insurrection*. If the power to regulate commerce with foreign nations carries with it, as incidental, the right to build light-houses, breakwaters, and to improve harbors, the power to regulate commerce among the States clearly confers the right to aid internal commerce as effectually, in the best mode in which that aid can be rendered. The power to foster foreign commerce is not more clear than the power to promote internal commerce. The constitution gives its powers to a national government whose territory is greatly more adapted to an extraordinary development of internal than of external commerce. In acting on these powers, the interests of the people who inhabit interior must be cared for, as well as those of the people whose residence looks out on foreign nations. If the power to regulate embraces the power to aid, in the case of foreign commerce, it no less embraces the same power in the case of internal commerce. From the commencement of the government, a leading object of congressional and executive action has been the promotion of the interests of foreign commerce. For it, our coasts and harbors have been surveyed and fortified at an expense of untold millions. For it, discriminating duties have been levied, and commercial treaties entered into. For its defence, a navy has been maintained at a cost to the nation of hundreds of millions. What has our government done to foster internal commerce? Scarcely anything. But the course of national action must be changed—it will be changed. The voters of the great interior valley, and the sections in immediate connection with it, have now the power to do themselves justice; and it will be done. To regulate commerce among the States will have as beneficial a meaning as to regulate commerce with foreign nations. Why should it not? Is the promotion of a community of feelings and interests less important among the States than with foreign nations? Foreign commerce is said partially to denationalize those engaged in it. Commerce among the States would, on the same principle, tend powerfully to nationalize us. If we become one people in feeling and interest, we shall become one in action.

The construction of railroads, and the improvement of rivers and harbors, seem to be the best means by which the government can, beneficially, regulate commerce among the States. Are they not also the best means of national defence, and of suppressing insurrections?

By them, the most speedy and certain concentration of military force may be effected. It is contrary to the policy of our government to keep up a large defensive military organization. But our frontiers touch the

dominions of the most powerful nation which the world has known. Across the whole breadth of the continent this power bounds us on the North, and over all the waters of the Atlantic and Pacific, on which our shores spread out, her navy holds supremacy. With this warlike power it is believed, by wise men, that our country is destined to have a deadly struggle. How shall we prepare for it? Not by creating a great army and navy, which would eat out our substance, and, perhaps, overturn our free government; not by lining our frontier and coasts with fortifications which could not be properly manned without a large standing army, and which might be evaded by the foe. Safer, cheaper, and more certain means, should be adopted. Improve the organization of the militia; provide the materials of defence in safe arsenals; and, above all, make reliable your river and harbor accommodations, and your means of concentration, by a complete system of railroads. By these you increase wealth, instead of consuming it. You place in the hands of the people the means of growing in knowledge and riches, and you furnish the government with an immense power to repel invasion, and to put down insurrection.

The suggestion of a plan of national railroads, which, it is hoped, will be satisfactory to well-informed and fair-minded men, having in view only the public good, is now what we shall venture upon.

What lines of railroad should be adopted and established as post-roads of the first class?

This question will be answered, according to our views of the condition and claims of the whole country, with reference to purely national interests.

One line should connect the States of the Atlantic border from Maine to Louisiana. This might commence at Bangor, and, passing through Augusta, Concord, Worcester, Springfield, Hartford, New Haven, New York, Trenton, Philadelphia, Wilmington, Baltimore, Washington, Fredericksburgh, Richmond, Petersburgh, Raleigh, Columbia, Augusta, Louisville, Milledgeville, Macon, Columbus, Montgomery, Cahawba, and Jackson, terminate at Vicksburgh, on the Mississippi.

Another line should connect the great maritime ports on the Atlantic with the chief points on the lake frontier. Commencing at Boston and New York, and uniting in one line at Albany, it should thence proceed through Utica, Rochester, Buffalo, Erie, Cleveland, Sandusky, Toledo, Michigan City, and Chicago, to the Mississippi, at Galena or Quincy. This line would be about 1,300 miles long.

The third line should commence at Philadelphia, and pass through Pittsburgh, Zanesville, Columbus, Indianapolis, and Springfield, to Quincy or Alton, on the Mississippi. A branch should proceed from Pittsburgh to Erie or Cleveland. This would embrace an extent of about 1,000 miles.

The fourth line might commence at Richmond, in Virginia, and pass through Lynchburgh, Charleston, Point Pleasant, and Chillicothe, to Dayton, on the third line; comprehending a distance of about 550 miles.

The fifth line would commence at Charleston, South Carolina, and, passing through Hamburgh, Augusta, and numerous small villages in Georgia, Chatanooga and Nashville, in Tennessee, and thence directing its course to the Mississippi opposite St. Louis, with which it should connect, pass on to its Western terminus, at Alton or Quincy. This line would be from 900 to 1,000 miles long.

The sixth and last line should commence at New Orleans, pass over

the Rigolets to Mobile, from which point a branch should extend to the Navy-Yard at Pensacola. From Mobile the main line should proceed northward through Tuscaloosa, Florence, Nashville, Frankfort, Cincinnati, Dayton, Toledo, and Monroe, to Detroit. This line, with its branch, would require a road of about 1,100 miles.

RECAPITULATION.

1. Atlantic line.....	1,850 miles.
2. Northern frontier line.....	1,300 "
3. Middle line.....	1,000 "
4. Virginia line.....	550 "
5. Southern and Western line.....	1,000 "
6. Gulf and Lake line.....	1,100 "
Total	6,800 "

The termination at Vicksburgh looks to an extension to the capital of Texas, and that at Alton or Quincy to an extension to the Pacific.

An appropriation, by Congress, of \$5,000 a mile, would insure the completion of these 6,800 miles, within the next five or six years. All these lines in operation, an appropriation of \$10,000 a mile, in aid of the continuation from the Mississippi to the Pacific, would insure the speedy completion of that line.

The States on the West side of the Mississippi might receive their share of the national funds, at present, in the improvement of rivers and harbors, and in the incidental benefits of the system East of that river.

We deem it unnecessary to expatiate on the merits of the lines above given. Every reader who wishes to form a correct judgment upon it, will examine the system on a map of the United States. With such examination, if it does not vindicate itself, no words of ours would avail. Some doubts were felt whether a line from Baltimore northwestward, to connect with the central line, should not be embraced in the system; and, also, whether some line commencing on the Southern line in South Carolina, and extending northwestward through North Carolina, Tennessee, Kentucky, Ohio, Indiana, and Illinois, by way of Cincinnati and Indianapolis, to terminate at Chicago, should not be included. On the whole, it appeared more advisable to confine it, for the present, to the six lines enumerated.

To cause these lines to be built, within the next six years, we have supposed that aid from the general government, to the amount of five thousand dollars per mile, would suffice. Several of the more expensive portions have already been constructed; and over the interior valley they may be made, in the best manner, for less than \$20,000 per mile, including fixtures and machinery. The routes indicated are all great lines, promising such profits as to induce capitalists to embark in them.

To some, it may not be apparent that Congress will have the means to accomplish so much as this system, with the proper improvement of rivers and harbors, will call for. We will suppose the whole sum needed will be \$50,000,000. This will not be so much money withdrawn from the nation. It will mostly go in payment of labor which would be, otherwise, but little productive. Let us, then, see what are our means to repay these \$50,000,000. It will be remembered that, at the end of the war of 1812, a debt of about \$140,000,000 rested on us; and that, in 1817, an act was

passed appropriating \$10,000,000, annually, for the payment of that debt. Under that act, the debt, principal and interest, was paid off in eighteen years. Our population, during those eighteen years, was increasing from 8,000,000 to 14,500,000. For the eighteen years, from 1848, our numbers will range from 22,000,000 to 36,000,000. The average of the first period was 11,250,000; for the second period it will be 29,000,000. A debt of \$360,000,000 may, therefore, be paid, with the same amount of tax for each individual as was paid from 1817 to 1835. But our wealth has increased faster than our numbers, so that, in fact, our means of payment have quadrupled since 1817.

It will not be necessary to resort to additional taxation to pay the interest of any sum needed to carry out our plan; for the national government holds for public uses more than a thousand millions acres of land. These may be pledged to repay any loans made for carrying on these beneficent improvements. They are good security, under proper management, for \$400,000,000.

There cannot, then, be any want of means in the hands of Congress to accomplish the great good for which the people are so anxious. If any want of disposition be manifested among the representatives, it is hoped their constituents will not be backward to make known what they expect and what they demand.

In regard to the terms on which aid to railroads shall be granted, there need be no great difficulties. The government would, of course, only make the grant on condition that the mails should be transported as often as twice each day, and that all United States troops and munitions of war should be carried free of charge. There need be no limitation to this condition of mail service, unless as to franked documents, newspapers, and pamphlets.

With such facilities as these railroads would afford for giving certainty and rapid movement to the mail, the Post-Office Department would again become a blessing. It would no longer require judicial and congressional legislation, backed by the Executive, to keep it out of the hands of enterprising rivals. Instead of a hindrance to the dissemination of knowledge, it would become, as it was designed to be, a benefit to all—an injury to none. No longer depending on the avarice or caprice of railroad directors for its operation on the great lines, it might easily arrange with the minor lines over which, as yet, Congress shall not have extended the national authority.

But the blessings which such a system would confer on the country, far from being confined to the Post-Office Department, would be diffused through every channel of business, and every branch of society. To commercial exchanges through the interior, it would give an activity beyond anything witnessed heretofore in inland trade. A face of gladness would animate every department of toil, and new motives be held out to activity in enterprise. Social as well as commercial intercourse of the people of distant States, would break down local prejudices and annihilate sectional misunderstandings. The wages of labor would be improved, and the profits of capital increased beyond the whole cost of these works. Not only would the different sections and the different employments become more reconciled and friendly, but all would be furnished with a new motive of attachment to our common government. All would see and feel that it could make itself known by blessings as well as by burdens; that

its administration was not less adapted to promote the works of peace, and advance the glorious march of the arts and sciences, than the victorious march of armies. Such works exalt a nation far more than success in arms. They are not triumphs over fellow-men, but victories over ignorance and vice. They are not the ephemeral glories that perish with the generation which creates them, but they will endure to dispense blessings to many generations. As long as the hills stand, or the valleys disclose their beauty, so long will these works bear evidence to posterity of the energy and spirit of those who erected them.

We shall communicate no new idea to any member of Congress by saying that the House of Representatives has suffered much in the estimation of the country, by its devotion to partisan objects. It has come to be viewed rather as the national arena of strife for office, than as a body of national representatives seeking out the best modes of advancing the true greatness of their country. An opportunity now presents itself to elevate themselves and the nation. As republicans, we, the people, cannot consent that our republic shall be left long behind the kingdoms of the old world in the great industrial and social instrument of our day. We cannot consent that it shall be said of us that, possessing the finest country on the face of the globe, our government lacks the spirit or intelligence to provide for it those means of developing its resources and communicating with each other, which the governments of Western Europe are giving to their subjects.

We must have an efficient Post-Office Department; we must have the best means for the concentration of our military forces; we must be provided with the best ways for exchanging the productions of our industry among the States.

If the present session of Congress passes without efficient action on this subject, mass meetings should be held in every State to confer as to the best means of making the national government conform its legislation to the wishes of the people. The executive committee of the Chicago convention will, in that case, call a national convention, to represent, we hope, the friends of a railroad system, as well as of river and harbor improvements. A partial system, embracing only harbors and rivers, might fail. Perhaps it ought to fail; for neither the power nor the duty of Congress is more clear and imperative to improve rivers and harbors, for the purpose of regulating commerce with foreign nations and among the States, than to build, or aid to build, railroads.

J. W. S.

Art. IV.—A GENERAL STATISTICAL SOCIETY FOR THE UNITED STATES.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE, ETC.

SIR:—Desirous of seeing a General Statistical Society established, for the whole of the United States, I beg leave to call the attention of the readers of your widely-circulating journal to the considerations which seem to me to recommend such a society.

All will agree that, in scientific investigations, of every description, our reasoning, to be of any value, must be founded on facts previously and carefully observed; and, in many of the most important branches of knowledge, the facts required are to be ascertained merely by accurate *enumerations*; that is, by statistics. By these, and these alone, we can trace

the progress of society and civilization ; or, in other words, measure a nation's moral and religious improvement ; its health, wealth, strength, and safety.

Let me, then, briefly notice the different objects of human knowledge and inquiry, in which statistics are important, and which are even indispensable to just and practical conclusions.

One of the most obvious modes, in which statistics may be advantageously employed, consists in showing the amount of the *population* of a country, and how it is distributed.

The important truths, which we have been able to deduce from the decennial census, taken by the federal government, are too familiar to all to be insisted upon. That document has enabled us to see, besides the actual numbers, their increase, both in the whole Union, and in the separate States ; to compare the rate of increase, at one period, with the rate at another, as well as in one State with another ; and to compare the different races as to increase, mortality, and longevity. It shows us, in detail, how the whole population is distributed, as to sex, age, race, natives, and immigrants ; and, lastly, as to their employments, whether in agriculture, commerce, manufactures, navigation, mining, or the learned professions.

But with this stock of valuable information, which it would be difficult to estimate too highly, the census, occasionally, also suggests questions and doubts, which it affords no means of solving. Thus, for instance, it shows a great discrepancy as to the proportionate number of *lunatics* of the colored race in the different States. Confessedly inaccurate, in some of its details on this subject, it has been asserted not to be trustworthy in any part of them ; but, on the other hand, it must be admitted that, when we see a consistency in the census, in this particular, and that the number of lunatics, in the several States, increases with an approach to regularity, as we proceed North, it is impossible to suppose a gradation of errors, in the census-takers, correspondent to the alleged diversity in the different States. It is, then, desirable to ascertain how much of this diversity is real, and how much is to be referred to the carelessness of the officers. If there be an actual difference among the States, we may then inquire how far it is attributable to climate or other physical causes, and how much to moral causes ; and accurate knowledge on these points can be obtained only by the close and diligent inquiry of men ardent in the pursuit of truth, and feeling the responsibility of scientific investigation.

There is, also, exhibited by the census, an extraordinary difference in the *longevity* of the different races—that of the enslaved blacks to the whites being as 9 to 1 ; and that of the free blacks to whites as 30 to 1. To remove all doubt from this subject, it will be necessary to get more authentic proofs of the ages of the very small number who fall under this category ; and where precise certainty is unattainable, as in most cases it probably would be, we might know whether, after making ample allowance for possible error, we could arrive at any certain conclusion on the subject, or whether the problem must remain to be settled by future observation. It is a fact in physiology that well deserves examination.

There is, in like manner, uncertainty about the number of *immigrants* to the United States. The returns to the custom-house, required by law, are not always accurate, and have sometimes been intermittent. Besides, a part of those arriving at New York, and perhaps other ports, go to

Canada ; and a part of those sent to Canada remove to the United States. All these facts could be ascertained, with sufficient accuracy, by the inquiries of selected individuals, or of affiliated societies.

The last census, also, professed to give enumerations of the principal products of the land, labor, and capital of the country, the value of which details would have been incalculably increased, if we could confide in their accuracy. They are, however, replete with error ; and it is greatly to be feared that even an approximation to the truth, in details of this character, is not to be looked for in the census, without an increase of officers, and, consequently, of expense, that will not be incurred by the legislature.

By such details we could ascertain the condition and progress of *agriculture* in the several States. It is not, indeed, to be expected that the gross amount of raw materials annually produced can be accurately estimated by statistical societies ; but indicia of their increase or decrease are to be found within the scope of their inquiries : as, in the current prices of agricultural products, taken in connection with the quantities exported ; the prices of land ; the establishment of agricultural societies, exhibitions, and fairs ; the introduction of labor-saving machines ; of manures, and of new modes of husbandry ; and the products, per acre, in specific cases.

The like details may show us the existing condition and progress of *manufactures*. The number of manufactories ; the quantity of raw material worked up ; the quantity of finished fabric ; the price of the fabric ; the amount of capital employed ; the number of operatives, male and female, adults and children, and the wages of each ; their annual profits— are what we require to know, and they may be all accurately ascertained.

A comparison in these particulars, of one year with another, would show us with certainty and precision the changes which any branch of manufacturing industry had undergone, whether favorable or unfavorable ; and, in the latter case, would often suggest the corrective.

But a large portion of the industry and capital of every civilized community is employed, not merely in producing useful commodities, but in *transporting* them from one place, where they have less value, to another, where they have greater ; and whatever cheapens this transportation, has a double effect in augmenting the wealth of the community, both by saving expense and stimulating production. Statistics at once inform us of these improved processes of transport, as well as aid us in effecting them, whether they take place in ocean navigation ; in the smaller vessels that ply along the coasts ; in the yet smaller which thread our estuaries and rivers, or glide along the canals ; or in our various land vehicles, from the turnpike wagon to the railroad steam-car.

Sometimes our foreign transport is vexed and burdened by the *commercial regulations* of other countries, by way of fostering their own navigation and commerce ; which regulations we are obliged, in self-defence, to counteract. These regulations would be embraced in a comprehensive system of statistics. Though the statistics of commerce are, in general, amply furnished from the Treasury Department, and other official acts of the federal government, there are some important facts concerning trade which they do not disclose. Thus, for example, they take no account of the produce of the several States sent coastwise to other States ; so that we know not how much of wheat or flour, which is exported from New York

or Baltimore, for example, is produced in the States of those cities, and how much in other States.

Nor do the custom-house returns enable us to estimate, with any approach to correctness, the number of small craft and their crews which ply on our great bays and rivers. In an accurate account of all the shipping, of every description, which navigate the Chesapeake and the numerous rivers it receives, it would probably be found to be the greatest inland nursery for seamen on the globe. It would comprehend the shipping of Baltimore, Alexandria, Fredericksburgh, Norfolk, Richmond; several smaller ports of entry, both on the Eastern and Western shores of Maryland; besides hundreds of shallops and schooners, owned by wealthy planters and farmers in Maryland and Virginia.

Statistics, more detailed than we yet possess, and continued through a longer period, would enable us to decide, with certainty and confidence, on the comparative advantages of *canals* and *railroads*, and how the comparative advantages of each are modified by particular circumstances. This is a question of great and still increasing importance in a country so rapidly advancing in wealth and numbers as the United States.

A better knowledge of the theory, both of canals and railroads, which must be founded on statistical facts, would have saved many millions that have been improvidently expended in our country in both these species of undertaking. It may be laid down as a demonstrable truth, that every undertaking of the sort is a misapplication of the national capital, if the nett annual profit to the shareholder is not equal, and cannot, without enhancing the cost of transport, be made equal to the market rate of interest. When tried by this test, there is many a railroad and canal which are still kept up, and are a great convenience to those who use them, which must be condemned by the principles of a wise economy. The good they confer is like buying gold for eighteen or twenty ounces of silver, when it is worth but sixteen.

The statistics of *banks*, of the *coin*, and the *precious metals* generally, important auxiliaries as they all are to commerce, and even the every-day exchanges of life, are of great value. By making us acquainted with the actual condition of our moneyed institutions, they greatly tend to make that condition safe. They give us timely warning of those which are in peril, whether from their own imprudence, or mere mischance. They may, also, enable us to settle the mooted question, whether gold and silver have risen in value, since the beginning of this century; and, if so, to what extent, and whether they are still rising.

A close attention to the amount of capital of all the banks in a community, their issues, deposits, loans, specie, and dividends, and to the fluctuations to which each of these is subject, would correct many prevalent errors in the theory of banks. Their proper functions would be better understood, and neither be roundly denied on the one hand, nor grossly overrated on the other. The crude experiments which the State legislatures are ever making on this subject, whether to seek in bank paper a substitute for capital, or to extend that paper beyond its natural limits, or to found their issues upon land, or funded debt, or anything but gold and silver, would soon have their fallacies exposed.

Statistics of our *fisheries*—comprehending the whale, cod, mackerel, shad, and herring, would instruct us in a valuable branch of domestic industry. The oyster trade, if it were practicable to ascertain its amount,

would be truly astonishing. It has been greatly increased by the growth of our cities, and the multiplication of railroads, and it is quite possible that it employs more hands than all the other fisheries put together.

There is no branch of home industry more interesting than that of mining. The native minerals may rank in intrinsic importance in the following order :—Coal, iron, salt, lead, copper, and gold. The progress of the *coal trade*, as certainly as anything else, marks the progress of manufactures, and the growth of cities. We find, too, that its price cheapens, rather than advances, with the increased consumption ; so that it bids fair, in its inexhaustible supplies in almost every portion of the Western country, to become the fuel of the poorest in the land. The rapid increase of the *iron business* must, also, be looked at with great interest. At the rate at which it has lately advanced, we may expect that in twenty years, or less, the country, then consuming ten times—perhaps fifty times—as much as at present, will be able to supply its own enormous demand. Should the supply of *native gold* continue to increase, as is not improbable, it must always be a long way in the rear of the other minerals mentioned, on the score of public utility.

But statistics are not confined to the subject of national wealth—its amount, its sources, and its progress—they are extended to yet higher objects. They make us acquainted with all the constituents of national greatness and welfare.

In *medicine*, they inform us, not only of all cases of fatal disease, but of the proportion in which each disease has done the work of death. They may, also, inform us of the proportion which those who die bear to those who recover in any particular malady. Different countries and seasons may be compared as to health, mortality, and longevity ; and the same disease may be compared in different countries, and at different periods. They may even enable us to compare the effects of different remedies and modes of treatment. Thus, a few years since, some German physician recommended the use of *bella donna*, as a preventive of scarlet fever. It was accordingly tried, but with different opinions of its success ; yet we can hardly doubt that, if there had been a careful register of the numerous cases afforded by a large city, and yet more by several cities, we could have deduced whether it was, if not a certain, a probable preventive, and what was the degree of probability. The more frequent use of statistics of late years, and their greater accuracy, has, no doubt, contributed to the acknowledged advancement of the medical science ; and its beneficial effects must be particularly great in hospital practice. The greater liabilities of each sex, and of particular trades and occupations, can also be better ascertained, and be more carefully guarded against. In this way, a recent French writer has shown that the number of females afflicted with cancer, is ten times as great as that of males. The probability of transmitting particular diseases to descendants may, in like manner, be more correctly estimated ; but there is no end to the modes in which faithful enumerations of cases carefully classed may instruct and enlighten practitioners in the healing art, and give useful admonitions to the rest of the community.

In the statistics of *schools* and *colleges*, we may see the extent and progress of juvenile instruction of every kind. This was one of the most valuable parts of the last census. If it mortified the pride of some States, as much as it flattered that of others, it likewise stimulated them all in the cause of education.

The intellectual progress of a country may be further seen by the number of its books annually printed—distinguishing its original works and its re-prints; the number of its newspapers, and other periodicals; of its libraries, and the number of volumes contained in each; and lastly, of the number of its indigenous works re-printed abroad.

The progress of a taste and talent for the *fine arts* may be exhibited by statistics of the number of professional painters, sculptors, engravers, and architects; the number and value of the works of art imported; the number of public exhibitions, as well as the number and value of the works exhibited; and of the cost of the public buildings, of the first class, annually erected.

Finally, statistics may show our *moral* and *religious advancement*. The progress of education itself affords, indeed, some evidence of improvement in morals, though it must be admitted that this influence of mental culture is not so great or decided as we might be led to expect. But we have more unequivocal proof of a country's moral condition, in the statistics of *crime*. Whenever we find that the proportion of crimes, for several years in succession, have increased or diminished, we cannot doubt that there has been a correspondent alteration in the morality of the great body of the people. Some inferences may, also, be drawn from the character of the crimes increased or diminished. It is only by a close attention to the statistics of our penitentiaries, for a number of years, that we can determine the effect of these institutions in preventing crime, and settle the question, long agitated, whether society can safely dispense with capital punishment. Indeed, there is scarcely any law enacted for the punishment or prevention of offences, whose efficacy may not be tested by accurate statistics, judiciously used.

The progress or decline of *religion* may, in like manner, be indicated by annual enumerations of the number of preachers in each sect; the number of sects; the number of adherents in each; the number of places of worship; the amount of annual endowments; and the increased rigor or relaxation of the laws of *mortmain*, and other restrictions founded in jealousy of sacerdotal influence. So the number of *public charities*, and the amount annually disbursed by them, may be considered indicative of an increase of philanthropy, or of wealth in one part of the community, or of poverty in another part, or of all these causes together; and the influence to be ascribed to each may be inferred from other details.

We have thus seen that accurate statistical knowledge make us acquainted with everything which concerns a nation's greatness, or morals, or happiness; and that it affords us the only materials for settling all doubtful questions of national policy, as it brings them to the test of actual experience. And surely, if there is any country in the world in which they are particularly useful, it is in the United States, where everything is in a course of unprecedented advancement, and unceasing change; so that while, in most countries, it requires a generation or more to bring about important changes, here our very rapid growth makes it almost as necessary to have new statistics every year, as a new almanac. Let me add that our numerous journals, among which your own Magazine is confessedly pre-eminent, furnish us with a large and still increasing quantity of valuable statistical information. If these scattered rays were collected into one focus, as might be done by such a society, what a world of light might they not shed on great questions of national welfare!

Deeply impressed with these truths, I have ventured to take the preceding imperfect and cursory notice of them, for the sake of recommending statistics to those who are less familiar with the subject; and, also, of inviting those who agree with me in estimating their importance, to co-operate in establishing a *General Statistical Society for the whole Union*. It would probably be found sufficient for such a society to meet but once or twice a year, alternately at New York and Philadelphia; and the business of the society could be prepared for them by standing committees, annually appointed.

I would, therefore, take the liberty of suggesting that those who are friendly to the proposed institution, would signify, by letters, post-paid, addressed to the editor of Hunt's *MERCHANTS' MAGAZINE*, their willingness to concur in its establishment; and, also, whether they approve of a general meeting, convened for that purpose, in the month of April or May next, in this city or New York.

GEORGE TUCKER.

Philadelphia, October 22, 1847.

Art. V.—DEBTS AND FINANCES OF THE STATES OF THE UNION:

WITH REFERENCE TO THEIR GENERAL CONDITION AND PROSPERITY.*

CHAPTER II.

The New England States—Maine and Massachusetts.

PROSPERITY OF THE NEW ENGLAND STATES—PUBLIC DEBT OF THE STATE OF MAINE—LUMBER TRADE—BOUNDARY QUESTION—RESOURCES OF STATE OF MAINE—REVENUE AND EXPENDITURE—TONNAGE OF THE SEVERAL DISTRICTS OF MAINE—MASSACHUSETTS—HER ANNUAL REVENUE AND EXPENDITURE—OUTSTANDING STATE STOCK—RECEIPTS AND EXPENDITURES OF WESTERN RAILROAD—EASTERN—BOSTON AND MAINE—NORWICH AND WORCESTER, DO.—REVENUE AND EXPENDITURE OF MASSACHUSETTS—PROGRESS OF THE SAVINGS BANKS OF THAT STATE—INSURANCE COMPANIES, ETC., ETC.

In the November number, we introduced the subject of State debts in a general article, and now resume the matter in regard to the indebted States respectively.

When the United States, as a confederation, had successfully wrought out their own independence, and by so doing had emancipated their external trade from the adverse influence of a rival country, they had also removed from internal intercourse all restrictions and impediments that obstructed the freest circulation of capital in any and every shape. They, moreover, provided for its safety, by establishing a tribunal of appeal in matters of difference that might arise between the citizens of two States, and by prohibiting any State from passing a law impairing the virtue of contracts. By these simple provisions, the whole country was thrown open to the vigorous enterprise of all its citizens. Perfect freedom of action, safety for property, remedy at law, and right of soil were bestowed, mutually, upon the citizens of sovereign and independent States, in their

* For the first of the present series of papers, the reader is referred to the previous (November) number of this Magazine; and as the general title of "State Debts" did not appear fully to express the design of the writer, we have, as will be seen, given the second chapter one more appropriate and comprehensive. The series will embrace each State in the North American Union; the whole forming a very complete statement of the debts, finances, general condition, and prosperity of the country.—[ED. MERCHANTS' MAGAZINE.]

intercourse with each other. It was, however, the case that, how rich soever might be the country in natural resources, wealth could not be made available without the application of capital to a greater or less extent, and the capital of a new country was supposed not in sufficient abundance to allow of the construction of public works by private enterprise. The country, in its nature, was agricultural. Limitless tracts of the richest soil were at the command of the settlers, but unless those lands could be put in communication with markets, their value could scarcely be realized. Hence, the Atlantic slope of the Alleghanies, only, was settled; and communities prosperous only on the banks of those mighty streams that, rolling to the Atlantic, formed natural avenues for trade. The Southern plantations followed the same courses, and the mighty Mississippi, alone, opened the Western States to the enterprise of the settler. It soon became evident, that the natural avenues for trade were insufficient for the wants of the country; that a Northern communication between the Eastern and Western States was necessary; and the credit of the States was called into requisition to aid in the development of resources. This has been done, generally, in two modes, viz: by establishing banks, under the supposition that paper money was necessary to the sale of produce, and by the construction of public works for its transportation to market. For these two purposes, mostly, twenty States of the Union have contracted debts that amount, in the aggregate, to some \$233,000,000, and six States have contracted no debts. It may be doubted whether any positive good has been derived from this action of governments. In relation to banks, the use of State credit has been of unmixed evil; and in the construction of public works, the Erie Canal, of New York, is the only example of complete success in government enterprise of this nature. Yet the agency of the government in it, only promoted its construction at a period perhaps somewhat earlier than otherwise would have been the case had it been left to private enterprise; and by so doing afforded an example of the vast utility of such works, thereby spurring enterprise in that direction. The New England States, where the greatest proportion of bank capital and of public works exist, are precisely those where the governments have done nothing for the promotion of those objects. We purpose to examine the policy of each indebted State separately, in giving a brief account of their existing debt and means; and in so doing, shall have occasion to observe the practical effects of government interference in matters of trade.

The six New England States are, beyond doubt, the most thriving of any portion of the Union; yet they are less gifted by nature with those great natural advantages which are usually supposed to constitute the foundation of national wealth. The soil is comparatively sterile; the climate, for the most part, severe; the face of the country rough and rocky, and by no means rich in minerals. The governments of these States have never, by credit or otherwise, attempted to supply bank capital, under the pretence of developing resources; and Massachusetts has alone subscribed some \$6,000,000, in aid of railroads, that, to the extent of \$23,000,000, have been constructed in Massachusetts; and it is estimated, some \$37,000,000 additional have been subscribed by her citizens for roads in other parts of the Union, calculated remotely to promote the commercial prosperity of Boston. It is not a little singular, however, that while the policy of Massachusetts has been the most sound in rela-

tion to financial matters, that that of Maine, which separated from her in 1820, should have displayed the least practical wisdom. The funded debt of Maine reached its maximum December, 1841, when it was as follows:—

PUBLIC DEBT OF THE STATE OF MAINE, DECEMBER 31, 1841.

Due in 1839.....	\$284 03	Due in 1851.....	\$450,685 09
" 1842.....	9,946 22	" 1852.....	139,000 00
" 1843.....	17,500 00	" 1854.....	35,000 00
" 1845.....	262,146 22	" 1855.....	352,000 00
" 1846.....	1,500 00	" 1856.....	133,000 00
" 1847.....	55,800 00	" 1860.....	63,500 00
" 1848.....	283,000 00	Total.....	\$1,734,861 47
" 1850.....	31,500 00		

The debt is issued in transferable stock, bearing interest at 5 a $5\frac{1}{4}$ a 6 per cent. On a portion of the stock, interest is payable at Boston, annually; and on the residue, semi-annually, at the State treasury. This debt was contracted, partly for an insane hospital, partly for primary schools, and for expenses incurred under the border difficulties, and for improvidence in the administration of the finances; but the most singular object for which large sums were paid, was a bounty on the growth of wheat and corn, amounting to about eight cents per bushel on the former, and four cents on the latter, paid to all farmers who raised over fifty bushels. The climate and soil of Maine is little adapted to agriculture, and the attention of the people is mostly turned to lumber, navigation, and fishing, in which they have prospered. The sapient government, however, indulged the notion, that it was for the interest of the State to encourage the growth of corn by paying a bounty, which would enable farmers to extract it from the unfavorable soil of Maine, to compete with that brought from the fertile fields of the South at cheap freights. The lumber and manufactures of Maine, can be produced by her citizens on terms far better than in Virginia or Maryland. The latter States have the advantage in raising corn. The shipping of Maine carries thence her products, and returns with corn, delivering it cheaper than the Maine farmer can produce it. The farmer who turns his attention to lumber, brings corn into the State cheaper, that is, for less labor and consumption of capital, than by raising it directly from the soil; or, in other words, the expense of getting out lumber, paying a Portland vessel for carrying it from Bangor to Baltimore, for instance, exchanging it for corn, and paying the freight of the corn back to Portland, is less than the expense of raising the corn. Yet that government supposed, that by taxing the people to pay a bounty on home-grown grain, thereby depriving her own shipping of freight while the owners were taxed to pay the bounty, that they were benefiting the State! In one year, the wheat raised was 1,107,849 bushels, and the bounty paid, \$87,352 30; the corn raised was 1,630,996 bushels, and the bounty paid, \$66,628 80; together, the bounty was \$153,981 76. To pay this charge annually, the State contracted debts. Probably so great an absurdity has not been displayed in all the legislative pranks of other States. In the same year, Bangor exported—

121,000,000 feet of lumber, at \$10 per M.....	\$1,210,000
Small lumber.....	400,000
Total.....	\$1,610,000

The *stumpage* on this amount of lumber, that is, the pay to the owners of the land, was probably about \$500,000—leaving the balance of \$1,110,000 to be distributed among mill-owners and the various operators, and those who furnish supplies and implements, &c.

This is one of the staples of Maine business and commerce, and when taken in connection with ship-building, bark, wood, leather, spars, cedar posts, bricks, barrels, potatoes, &c., helps to give some idea of the business taxed to pay bounties.

In the same year, Portland imported 300,000 bushels of wheat, and 103,134 bushels of corn; and the merchants who imported it, sold it at a profit in the face of the bounty allowed the growers to undersell them.

Fortunately, however, for Maine, notwithstanding the unsound policy she pursued in contracting a large debt, equal to \$3 per head of her population, circumstances have favored her release from it without the necessity of special taxation for that purpose.

In the course of the controversy between the United States and Great Britain, in relation to the Maine boundary, some moneys were received by the agents of Great Britain for the province of New Brunswick, for the purpose of preventing depredation on the forests. These moneys were carried to a fund, called the "Disputed Territory Fund," which was to be paid over to parties interested, in accordance with any final settlement that might take place. By the treaty of Washington, that fund was accounted for to the United States, which undertook to settle with Maine for her share, as well as to pay \$300,000, in equal halves, to Maine and Massachusetts, for what of their rights was ceded to Great Britain. The settlement of the difficulties also promoted the availability of the State lands, and enhanced the revenue therefrom. There was also received \$19,716, as the share of Maine under the land distribution act. By these means, the receipts of the State greatly exceeded its expense; and on the 1st of January, 1844, there remained in the treasury a balance of \$388,595. The resources of the State, at the date of the debt as above given, were as follows:—

RESOURCES OF THE STATE OF MAINE, JANUARY, 1842.

Cash in the treasury.....	\$55,952 07
State taxes of 1840 and 1841.....	199,349 34
County taxes.....	1,605 90
Securities in the hands of land agent, and bills receivable.....	184,460 02
Claim on the general government for N. E. boundary expenses.....	209,000 00
210 shares in Augusta, Maine, and Mercantile Banks.....	21,000 00
 Total.....	 \$671,367 33

These claims on the federal government for military expenses, disputed territory fund, and award under the treaty, have all been paid. When the means from these sources began to accumulate, an act was passed for the purchase of the outstanding debt. Inasmuch, however, as that it was in high credit, very little could be got on reasonable terms. As it fell due, however, it was discharged; and on the 1st January, 1846, the debt was reduced to \$1,274,285, embracing \$161,000 of the sum in the above table due in 1848, and the sums yet to fall due; and \$370,000 remained in the treasury, or on deposit with the banks, without interest. This money ought to have been invested in United States treasury notes, that it might be earning at least as much as the State was paying on an equal amount of its own stock, which it was seeking in vain to buy.

The revenue and expenditure of the State, for the years 1844-5, were as follows :—

	REVENUE.		EXPENDITURE.	
	1844.	1845.	1844.	1845.
Land agent.....	\$92,151	\$155,048	Expenses.....	\$191,201
Taxes, &c.	275,939	293,326	Interest.....	97,886
Federal gov'nment.	162,398		Debt.....	72,500
Total.....	\$368,090	\$610,772	Total.....	\$361,587
On hand.....	388,595			392,422
Total.....	\$756,685			370,000

These figures evince great prosperity on the part of the State, and guarantee the speedy extinguishment of the debt, as well as remission of taxes from the people through increasing land revenues. The prosperity of Maine was never greater than at this moment, and there is but little danger of her adopting again the absurd plan of encouraging by bounties the misdirection of the labor of her citizens. Manufactures, fishing, trade, and navigation, are the natural objects of Maine industry, and by these she will become one of the first States of the Union. The extension of railroads—connecting her with Canada, on one hand, and with Boston, on the other—must greatly develop her manufacturing resources. The progress of her shipping interest will be seen in the following official figures :—

TONNAGE OF MAINE, 1846.

	REGISTERED.	TEMPORARY.	ENROLLED AND LICENSED.					LICENSED UNDER 20 TONS.		
			Coasting.	Cod.	Mackerel.	Whale.	Steam.	Coast.	Cod.	Total tons.
Passamaqu'dy.....	5,057.18	445.35	4,823.38	912.29	1,577.20	.....	.....	123.37	83.94	13,024.81
Machias	542.94	336.04	13,780.50	486.84	.....	.....	.....	109.11	.....	15,255.53
Frenchman's Bay.....	1,304.08	129.14	27,499.10	2,937.15	652.77	90.77	.....	116.02	556.79	33,286.84
Penobscot..	6,034.45	448.26	13,828.82	9,693.58	2,513.60	.....	.....	208.14	328.75	33,255.75
Belfast.....	10,010.16	1,400.18	29,222.00	1,498.80	550.84	.....	655.36	109.61	106.34	42,896.08
Waldobor'h.	14,989.88	881.83	37,796.94	4,711.36	36.36	.....	.....	60.45	1,581.15	60,058.17
Wiscasset....	3,982.14	1,022.48	8,910.31	2,664.88	30.26	.....	.....	425.49	17,035.66	
Bath.....	40,879.15	1,606.52	19,249.85	1,558.01	374.40	.....	1,218.10	80.49	467.77	64,216.34
Portland.....	38,764.23	7,127.57	14,230.00	3,656.47	2,064.92	.....	592.03	9.68	382.83	66,235.85
Saco.....	248.86	854.29	1,749.91	162.70	157.20	.....	.....	.....	100.04	3,273.15
Kennebunk.....	4,158.77	2,337.91	1,375.55	533.13	.....	.....	.....	.....	89.77	8,495.28
York.....	.....	.....	837.42	52.63	181.11	.....	.....	16.07	1,087.28	
Total, 1846..	125,975.84	16,589.57	173,306.78	20,047.84	8,131.66	90.77	2,465.69	819.47	4,138.94	358,122.74
" 1832..	67,904.76	16,581.29	87,475.22	9,796.25	8,052.46	.....	.....	1,083.33	1,819.37	192,714.38
Increase	58,071.08	8.28	85,831.56	19,251.59	79.20	90.77	2,465.69	.....	2,319.57	165,408.36

This displays an increase of near 100 per cent in fourteen years, the largest proportion of which has been in the coasting trade, showing the progress and efficiency of her shipping interest in promoting the true interests of Maine. The fishing interest has always received bounties from the federal government, yet it appears to have increased in a less ratio than any other branch of commerce. While the material interests of Maine are thus prosperous, the settlement of her public lands is affording a constantly increasing revenue, of a magnitude sufficient to defray the whole debt and expenses of the government, so as to release the citizens from taxation for State purposes.

MASSACHUSETTS. This noble State, one of the most wealthy in the Union, and the property of which is more equally divided and rationally enjoyed by the whole people, than perhaps in any other community in the world, is numbered among the indebted States. She did not escape that universal furor, which prevailed throughout the commercial world during the years 1834-6, and she contracted debt without providing specific means of payment. It is true that her means were so ample, and her governmental wants so small, that it appears to have been rather want of attention, than an unsound policy, which produced the temporary confusion in the finances of the commonwealth. In 1821, when Maine was separated from Massachusetts, the remainder of the old debt of the State, some \$500,000, was paid off, and the ordinary receipts of the government, derived from bank tax, auction tax, sales of lands in Maine, belonging jointly to both States, sufficed for a moderate expense of some \$250,000 to \$300,000, and no direct tax was imposed upon the citizens.

The State of Massachusetts, in ceding her lands to the federal government, in 1785, retained a claim to all lands East of the Hudson; and on the erection of Maine into a State, stipulated that one-half of the proceeds of the land, unsettled at that time, should be paid over, as sales were effected, by that State. This has given Massachusetts an important interest in those lands.

In 1831, \$420,000 was received from the federal government as a balance due Massachusetts for war expenses. One-third of this was paid over to Maine, and the remainder, \$281,000, was loaned to certain banks in Boston, at 5 per cent, for twenty years. In 1834, this fund was made the basis of a school fund, and an act was passed appropriating, in addition, one-half of the annual proceeds of the Maine lands, amounting in all to \$30,000, until the fund should rise to \$1,000,000. This diminished the regular revenues by \$15,000 per annum.

About the same time an increase in expenditure took place. The expenses of the members of the legislature were formerly paid by the locality electing them. This charge was transferred to the treasury, without any specific means being set apart to meet the payment. It was, in fact, a remission of taxes, trusting to luck to make good the payment. The next step of the legislators was, when their constituents no longer were taxed for the payment, to raise their own salaries. The constituents, also, having no more taxes to pay for members, sent a greater number. By these joint means, the expenses of the general court rose from \$36,603, in 1825, to \$163,794, in 1837; but the constitution, amended in 1838, provided for a diminution of this charge. It was also the case, that the State authorized the building of the lunatic asylum at Worcester, for \$200,000; ordered surveys, which cost \$130,000; a revision of the statutes, in 1835-6, which cost \$100,000; and a bounty on wheat and silk, which the State thought proper to grant, to the extent of \$32,000; an appropriation to the militia of \$300,000; and also to agricultural societies, blind asylum, deaf and dumb asylum, eye and ear infirmary, &c., \$375,000, altogether amounting to \$1,137,000, swelled the expenses far above the revenue, and produced a State debt. All these objects, with the exception of the ludicrous bounty on wheat and silk, were doubtless worthy objects of public attention; but one naturally regrets that so noble a State, and so wealthy a people, should have lavished money without

having it on hand, or being disposed to tax themselves to pay the money they granted. The progress of the revenue and expenditure was as follows:—

ANNUAL REVENUE AND EXPENDITURE OF MASSACHUSETTS.

Year.	Income.	Expenses.	Expense over income.	Money borrowed.	Debt paid.
1835.....	\$447,679	\$495,438	\$47,759	\$94,000	.....
1836.....	406,626	435,456	28,839	199,000	.....
1837.....	464,036	512,745	48,709	199,364	.....
1838.....	419,323	491,675	72,352	277,864	.....
1839.....	413,278	481,195	67,919	309,276	.....
1840.....	405,741	415,848	10,106	none.	.....
1841.....	391,000	479,202	88,202	70,000	.....
Total, 7 years.....	\$2,947,683	\$3,312,559	\$363,894	\$1,149,504	.....
1842.....	399,375	469,132	69,757	.....	.....
1843.....	373,030	408,112	35,082	.....	.....
1844.....	447,736	415,306	.....	.....	\$47,538
1845.....	446,356	418,641	.....	.....	46,550
1846.....	509,723	421,125	.....	.....	37,140

The excess of expenditure was in the shape of a floating debt, which, in 1839, reached \$300,000, and was funded in a 5 per cent stock payable in 1842. In that year, for the first time in many years, the revenue exceeded the expenditure, and part of the debt falling due was paid. The remainder was renewed for one, two, three, and four years, and was met partly in each successive year; the balance, \$37,140, having been paid in 1846. It was found, however, in 1844, that these payments could not be met without an increase of revenue; and, for the years 1844–5, a tax of \$75,000 per annum, each year, was imposed. The proceeds of this tax, although meant for the service of the years 1844–5, were not realized until 1845–6. The State of Massachusetts received from the federal government considerable sums, under the act for the distribution of the surplus revenue; but that was all loaned to counties, and did not come into State account. The State has thus been enabled to expend over \$1,500,000 for matters of public interest, without drawing more than \$150,000 from the citizens by taxes.

The debt of the State now consists in indirect liabilities on behalf of certain railroads, in aid of the construction of which she has issued her stock. The first of these loans was issued in 1837, in aid of the Western Railroad, which is a continuation from Worcester of the Boston and Worcester Railroad, 45 miles long, built by private means, at a cost of \$3,485,232. A company to construct the road from Worcester to Albany was chartered with a capital of \$900,000—one-third subscribed by the State, and the balance by individuals. It was then estimated that the work would cost \$3,000,000, and the State issued bonds in favor of the company, for \$2,100,000, by an act of February 21, 1835. The policy adopted by the commonwealth, in regard to these loans, was to issue the stock, principal and interest payable by itself directly, and to take a mortgage on the road and the whole of its property; and also stipulated that any premium on sale of bonds should be appropriated to a sinking fund to be augmented annually by a sum equal to 1 per cent of the amount of the scrip issued in its behalf, to be set apart for the redemption of the stock when it becomes due. It soon appeared, how-

ever, that the estimate of cost of the road was much too low, and in consequence the State's direct subscription to the work was augmented to \$500,000, and subsequently to \$1,000,000, of which \$995,000 of stock was issued ; and, by an act made in 1839, its loan of credit was increased \$1,200,000 ; and by an act of March, 1841, \$700,000—making, altogether, \$4,000,000 : of this latter, about one-half was sold in London at from par to 4 per cent advance, and the remainder in the United States. In addition to this loan to the Western company, the State loaned \$400,000 to the Norwich and Worcester Railroad Company ; to the Boston and Portland road, subsequently united to the Boston and Maine, \$150,000 ; to the New Bedford and Taunton, \$100,000, which was subsequently returned by the company to the State, and the mortgages cancelled. In like manner, \$50,000 bonds, loaned to the Nashua and Lowell, were not sold, but pledged for a loan, and afterwards redeemed and cancelled. The Eastern Railroad has also \$500,000 of scrip, the Andover and Haverhill \$100,000, and about \$100,000 was issued for the purchase of Charles River Bridge. The consequence of all these issues has been the following debt :—

MASSACHUSETTS STATE OUTSTANDING STOCK, JANUARY, 1847.

	Issued for	Rate of interest.	Redeemable.	Amount.
Subscription to	Worcester Railroad.....	5 per cent.	1857	\$995,000 00
Loan	" " "	5 "	1868	2,100,000 00
"	" " "	5 "	1870	1,200,000 00
"	" " "	5 "	1871	699,555 56
"	Eastern Railroad.....	5 "	1857	500,000 00
"	Norwich and Worcester.....	5 "	1857	400,000 00
"	Andover and Haverhill.....	5 "	1857	100,000 00
"	Boston and Portland.....	5 "	1859	50,000 00
Total debt and liabilities.....				\$6,044,555 56

Of the stock issued to the Western Railroad, about one-half, being expressed in British sterling, was sold in London at par to 4 per cent premium, and the remainder in the United States. The form of the bond, being made payable to bearer, is very simple, as follows :—

" Be it known, that there is due from the commonwealth of Massachusetts to the holder of this certificate five hundred pounds sterling, to be paid at the banking-house of Messrs. Baring, Brothers & Co., in London, on the day of October, 1868, with interest, at 5 per cent, payable at the same place, semi-annually, on the presentation of the interest warrant. In testimony," &c.

The other bonds are payable in Boston, and the interest payable at the place where the respective bonds are redeemable, viz : at the office of the Treasurer of the commonwealth, on all except the Western ; on the Western, part is paid at the office of the corporation ; and on the remainder, in London, where the stock is payable. The State pays the interest in the first instance, to be reimbursed by the company.

The commonwealth holds as security for the stock issued to companies other than the Western, in addition to a mortgage on all the roads, shares of the respective companies' stock as collateral security, viz : 3,000 shares of the Boston, 4,000 shares of the Norwich and Worcester, 1,000 shares of the Andover and Haverhill. The sinking fund of the Western company, constituted as above stated, and annually augmented by the receipt of \$40,000 from the company, being the stipulated 1 per cent on the stock loaned to it, has become important, and now amounts to \$349,242, and

swells at a rate which makes it evident that it will be ample to meet the debt. By law, one-third of the fund must be invested in mortgages, and the commission suggest that they should have more latitude allowed them in the investment, to avoid the inconvenience of having a large amount to realize from mortgages when the debt matures, perhaps in a tight market. We do not see the force of this argument at present, at all events. The first stock falls due in 1868; and, as the time approaches, the event may be prepared for without running the risk of unsound investment at this early period. At the time the stock was issued in payment of the 10,000 shares of stock directly subscribed for by the State in the Western Railroad, the remaining half of the proceeds of the Maine lands was set apart as a sinking fund to redeem it, and the dividends paid by the company more than meet the interest due on the stock issued for the subscription, which has, therefore, become a source of revenue. This sinking fund, to meet the \$995,000 of stock due in 1857, now amounts to \$397,870; consequently the State has no fear of losing by the operation. The high degree of prosperity evinced by all the railroads of Massachusetts is matter of admiration, more particularly those in which the State is interested.

The Western Railroad was opened in October, 1841, and its progress has been as follows:—

WESTERN RAILROAD, MASSACHUSETTS.						
Years.	Receipts.	Expenses.	Nett income.	Dividends.		
1842.....	\$512,688	\$266,620	\$246,068	.....	
1843.....	573,883	283,826	290,057	.....	
1844.....	753,753	314,074	439,679	3 per cent.		
1845.....	813,480	370,621	442,859	5 "		
1846.....	954,417	447,468	506,939	6 "		
1847.....	1,200,000	550,000	650,000	9 "		

The other three railroads have prospered as follows:—

EASTERN.			BOSTON AND MAINE.		NORWICH AND WORCESTER.	
Years.	Receipts.	Expenses.	Receipts.	Expenses.	Receipts.	Expenses.
1840.....	\$199,134	\$85,793	\$93,468	\$62,522	\$107,104	\$63,910
1841.....	299,574	290,127	116,016	82,021	151,926	64,038
1842.....	269,168	144,039	155,880	79,278	157,758	122,130
1843.....	279,562	.....	178,744	.....	162,335	137,464
1844.....	337,238	169,318	180,134	84,069	225,508	75,054
1845.....	350,149	116,840	243,626	110,663	204,308	85,765
1846.....	371,338	137,804	331,438	162,037	241,910	118,387

This shows a high degree of prosperity in those roads on which the State depends more immediately for the payment of the liabilities it has entered into. The general state of the railroad interest is seen in the following table of their aggregate business:—

MASSACHUSETTS RAILROADS.						
Years.	Length.	Capital.	Cost.	Miles run.	Income.	Expenditures.
1845.....	710	\$22,292,700	\$26,712,123	2,111,293	\$3,426,831	\$1,694,812 4 a 15
1846.....	717	28,170,000	30,244,927	2,595,801	3,940,504	1,856,812 6 a 15

These figures display the wisdom of the investments, and speak well for the enterprise of the citizens of the commonwealth. When we reflect, however, that of this expenditure of \$30,244,927, the amount contributed by the State is less than one-sixth, we may well question the propriety of investing that sixth. That it was unnecessary is evident, because sums as large as that furnished by the State are being expended by individuals

on routes far less promising than that of the Western Railroad, and this under regulations which, in spite of the subscription of the State in aid of the works, are far from liberal in their general scope. In granting charters, the State reserved to herself the right of reducing tolls, whenever the dividends exceed 10 per cent per annum, and a right of purchase after twenty years, on payment of the principal and 10 per cent income, deducting the tolls received. The capitalists, merchants and manufacturers of New England have been willing to embark in these enterprises for the sake of the collateral benefits derived from them in the general improvement of property they occasion. The whole system appears, however, to be wrong. It is pretended that the public are secured from extortion by the reservation, on the part of the State, of the right to reduce tolls when the dividends are over 10 per cent. The same object would be arrived at much more readily by a general law for the construction of railroads, and to allow competition to put down the rates of toll. The policy of the State is based on the notion that high tolls seemingly produce high revenues, a fallacy which is the ground-work of the protective system. We believe, however, that experience has shown that revenues are increased by a judicious reduction of tolls. Hence, to avoid any great display of income that might induce the State to exercise the right of purchase it has reserved, it might become the policy of a company to keep up the rates in order that the dividends might not be more than 10 per cent on these monopoly roads. By these means the State action would actually produce the very evil it designed to prevent, viz: extortion from the public. When the business of building railroads is, in an enterprising community like that of Massachusetts, thrown open like any other business, competition of private interests will be sure to serve the public far better than can any legislative proceedings whatever.

The general state of the finances of the commonwealth may be gathered from the heads of revenue and expenditure for the year 1846, as compared with that for 1838:—

MASSACHUSETTS REVENUE AND EXPENDITURE.			
Revenue.		Expenses.	
	1838.	1846.	
Auction tax.....	\$41,292 14	\$52,584 47	Government... \$187,403 26 \$139,732 49
Bank.....	354,562 00	312,000 42	Interest..... 25,289 60 54,642 69
State tax, 1845..	none.	66,606 75	Paupers..... 46,268 45 80,617 03
Alien passengers		11,526 39	Printing..... 19,225 67 13,013 66
Div. on Western stock.....	none.	50,000 00	County Treas- sury..... 68,680 75 40,536 19
Other items.....	23,468 89	17,005 87	Other items... 244,808 01 128,583 25
Total.....	\$419,323 03	\$509,723 88	Total.... \$491,675 74 \$421,125 31
Excess expense.....			72,352 71
" revenue.....			88,598 57

It is observable that the dividends on the Western Railroad stock were \$50,000; the interest on the scrip issued for it is \$48,750: thus making a gain of \$1,250. In 1847, the first dividend has been \$40,000, and the second will be probably \$50,000, making a surplus for the year of \$41,250 as the nett income of the State from its investment; and when its stock is redeemed by the operation of the sinking fund, it will derive a nett annual income of \$100,000 from this source. What a contrast is this to the \$5,000,000 sunk by New York in railway stocks!

There yet remains to the State 2,500,000 acres of land in the State of Maine, which will far exceed in value the amount necessary to raise the school fund and the sinking fund for the State subscription stock to \$1,000,000 each, to which amount they are limited by law. The former is already \$830,678, and the latter \$397,870. The surplus lands will form an addition to the direct revenues of the State.

The manufacturing interest of Massachusetts has increased, perhaps, more than any other. Her shipping by no means presents that increase which marks that of Maine, but her means of intercourse with the rest of the Union has promoted an immense interchange of the manufactures of Massachusetts for the raw produce of Western and Southern States. The general degree of prosperity which these industrial pursuits confer on her people at large, is well indicated in the progress of her savings banks, which, as compared with the gross population of the State at two periods, is as follows :—

MASSACHUSETTS SAVINGS BANKS.

Years.	State population.	No. of depositors.	Amount of deposits.	Deposits per head.	Gross dividends.
1843.....	775,186	42,587	\$6,900,452	\$162 00	\$282,231
1847.....	825,291	62,893	10,680,933	169 80	345,443

This shows a singular progress in the amount of money held by small depositors, both in the aggregate and *per capita*, while the proportion of depositors to the population has greatly increased. Here are near \$4,000,000 of capital called into existence at the command of the working people of Massachusetts in four years, being \$1,000,000 per annum ! Of this whole capital, about one-fifth is invested in public funds, one-fifth in bank stock, one-fifth loaned on personal security, \$232,528 on railroad stocks, and the remainder on real estate. The progress of insurance companies, in Massachusetts, is as follows :—

	1844.	1846.			
		Fire risks.	Marine risks.	No. co.'s.	Fire risks.
10 Mutual Co.'s.		\$16,017,651	\$43,400,683	5	\$11,098,721
17 chartered out of Boston.....		256,750	5,893,766	12	78,190
16 chartered in Boston.....		42,346,155	33,134,356	16	61,535,356
Total.....		\$58,620,556	\$82,428,805		\$72,712,267
					\$68,029,823

This shows a remarkable centralization of fire risks in Boston—perhaps, in some degree, the effect of easy communication by means of railroads.

T. P. K.

Art. VI.—COMMERCIAL CITIES AND TOWNS OF THE UNITED STATES.

NUMBER VI.

PITTSBURGH: ITS TRADE AND MANUFACTURES.

THE position of Pittsburgh, as the principal manufacturing city of Western Pennsylvania, and one of the most prominent in the nation, holds out advantages for this species of enterprise, which are, probably, exceeded by those of no other part of the Union. Situated upon a point of land at the junction of the Alleghany and Monongahela Rivers, and at the head-waters

of the Ohio, it possesses a continuous channel of river navigation to New Orleans, and is the terminating point of the main line of internal improvements in the State of Pennsylvania. Being the mart of a considerable portion of Virginia, New York, and Western Pennsylvania, as well as a large part of the Mississippi valley, there is opened to it a wide field of trade and commerce. Alleghany county, in which it is established, is distinguished for its resources; and tends, through that agency, to advance the prosperity of its principal city. But one of the principal causes of its growth is the great quantity of bituminous coal in the vicinity, situated at those points in which it is particularly required for the various manufacturing establishments. The seam of that kind of coal in the immediate neighborhood of the place, which is from five and a half to eight feet in depth, furnishes supplies for its manufacturing enterprise, and, also, for exportation. The Pennsylvania Canal passes along the right bank of the Alleghany, and, crossing it at Pittsburgh, connects its commerce with the Ohio. The beds of coal, which supply fuel for its manufactories, lie upon the summits of the surrounding hills, and constitute some of the most valuable deposits of this useful mineral, while the active enterprise of the people has applied those resources apparently to the most productive purposes.

It is to those local advantages which we have enumerated, that we may attribute the measure of enterprise here exhibited in the foundries, the steam-engine manufactories, rolling-mills, nail factories, glass-works, manufacturing establishments of cotton, and the various other products of manufacturing enterprise which are here produced. According to the census of 1840, the population of Pittsburgh, including Alleghany and the suburbs, was 38,931. The industry and trade of the city are, moreover, in a great measure, identified with those of the neighboring settlements of Alleghany, Manchester, Birmingham, and Lawrenceville—those settlements, together with Pittsburgh, so far as business interests are concerned, being properly regarded as a single community. Over the tract occupied by those, and the villages in the immediate vicinity, there is scattered a population of about 50,000. The interests of the city are, mainly, manufacturing and commercial. Previous to the recent disastrous fire, which destroyed so large a part of the place, Pittsburgh, with its suburbs, according to the best information which we have been able to obtain, contained 11 iron foundries and steam-engine manufactories; 8 rolling-mills and manufactories of bar-iron and nails; 8 glass-works; 6 cotton factories; 3 steel factories; 3 steam flouring-mills; 6 steam saw-mills; 2 extensive rope-walks; an oil floor-cloth manufactory; extensive smith-shops; plough, carriage, and wagon factories; establishments for boat-building, and for the manufacture of leather, hats, caps, paper, cabinet furniture, and a vast variety of other useful and fancy articles.

As the commercial emporium of Western Pennsylvania, commanding a large amount of inland commerce, the trade of the city is of considerable importance. Its manufactures of glass, iron, cotton, and other products, are despatched along the vast region of territory bordering the Ohio and the Mississippi, as well as to the borders of the lakes; and, in return, are received the various articles of pork, beef, lard, butter, flour, hemp, tobacco, cotton, sugar, molasses; and, also, a large supply of coffee from New Orleans. A part of those articles is re-exported to Baltimore, and still a larger portion finds its way to Philadelphia. Purchases are made

from the Atlantic cities, of cotton, woollen, and leather manufactures; bonnets, and other articles, which are the products of New England; as well as of various foreign imports. The facilities which it possesses, for inland navigation, have caused it to be one of the principal points of inland commerce in this quarter. In 1832, the tonnage of the port of Pittsburgh amounted to 10,092 tons; and, in 1841, it had increased to 10,343 tons. Of the large number of steamboats which ply upon the Ohio River and its tributaries, it is stated that, but a short time since, there were 89, with a tonnage of 12,436 tons, which were owned altogether, or in part, by citizens of the place, although, doubtless, the trade has been somewhat diverted to Cincinnati, and other points elsewhere, upon the Ohio River.

The city, likewise, possesses the trade of the two rivers, the Alleghany and Monongahela, at whose point of junction it is situated. The Alleghany furnishes a channel, through which is floated a considerable portion of the pine timber, boards, and shingles, that are used in the valley of the Mississippi, from that city to New Orleans. Steamboats, likewise, run upon this river during certain periods, while small keel and flat-boats do the carrying trade, when the river is low. We are informed that about four hundred large "arks," or "flat-boats," from sixty-five to one hundred and twenty feet long, annually come down the Alleghany River, laden with lumber, or produce, which are generally sold to the coal merchants of Pittsburgh, who again freight them with coal for Cincinnati, Louisville, and Natchez, as well as the intermediate ports. The manufactures of the city, and foreign and domestic goods, are sent up the Alleghany River; while the descending trade is comprised of all kinds of lumber, logs, and shingles, pot and pearl ashes, whiskey, cheese, cabinet-ware, patent tubs and buckets, hay, oats, potatoes, hoop-poles, bark, &c.; and, also, a large quantity of salt, as well as pig metal, from the neighboring iron establishments. Canal-boats throng the thoroughfares; steam-boats, to the number of four or five, enter and depart from its port each day; and large numbers of passengers pass through the place during the season of navigation.

All those appliances for the prosecution of the trade and commerce of the city, springing from the extent of its manufacturing enterprise, have, likewise, been provided. Banks and Insurance Companies have been established; and a Board of Trade, which possesses a reading-room, and an Exchange for merchants. An association for the improvement of the Monongahela River, by locks and dams, denominated "The Monongahela Navigation Company," has been organized; as well as about 12 transportation companies, for the prosecution of the passenger and freight business upon the canals.

The public edifices of the place are, moreover, adapted to the prosperity of the city. Before the recent fire, the new Court-House and University, the Seminary and Penitentiary, together with other buildings, tended to decorate its general aspect; and the particular part which was destroyed has resumed its wonted appearance. Nor is its population wanting in the means of intelligence and improvement. Numerous associations for the promotion of religious, moral, and charitable objects, have been established in the place and its vicinity; the cause of temperance has been extended; ten or twelve associations, for the diffusion of useful knowledge, have likewise been organized; and those have been provided

with libraries and reading-rooms, as well as with the means of lectures upon popular topics, when the occasion requires. Water-works were here first put in operation as early as 1827, and the Alleghany River supplies the city with pure water. Gas-works, for which extraordinary facilities exist in the great quantity of coal in the surrounding region, have been also erected, and the city is lighted by that agency. The newspaper press, moreover, appears to be well sustained; and one journal is printed in the German language.

Like the other points of trade in this quarter, the growth of Pittsburgh has been quite rapid. In 1775, there were but twenty-five or thirty dwelling-houses upon its present site—the land where it now stands constituting a manor, belonging to the family of William Penn, which remained their property at the close of the revolution. In the year 1784, town lots were laid off, which were rapidly purchased. The excavation of numerous coal mines, in this quarter, tended to furnish ample motives for the erection of iron and glass-works, and manufacturing establishments, as well as for the advance of its commerce and general trade. The peculiar aspect of the city, arising from the vast quantity of bituminous coal which is consumed in its various manufactures, can hardly fail to impress the passing traveller within its limits. Over the settlement a dense cloud of smoke is almost continually hovering, and the atmosphere is everywhere impressed with its influence.

There are, likewise, other circumstances connected with the place, which are no less the subject of gratifying consideration, than its advance in material interests. An extensive moral influence pervades the community; and several gentlemen, of well-known character, have added to the reputation which it sustains. Within its environs, and the circle of enterprise which immediately surrounds it, there are more than 70 religious societies. Situated 120 miles South of Lake Erie, 2,079 miles, by water, above New Orleans, and 300 miles West from the city of Philadelphia, it prosecutes an extensive trade with those several points; and its enterprise constitutes no inconsiderable a portion of the productive industry of the nation.

There is another circumstance, which renders the city of Pittsburgh highly favorable to manufacturing enterprise, and that is, the great abundance of iron ore which is found along the neighboring mountains, and upon the banks of the Ohio, within but a short distance from the place; and this, together with the extensive forests of pine timber, which are extended around the head-waters of the Alleghany River, and the vast beds of coal which lie upon the surrounding hills, furnishes special advantages for that particular pursuit. The products of this enterprise we accordingly behold in the amount of steamboats, steam-engines, bar-iron, nails, ploughs, agricultural implements, and various kinds of machinery and other articles, which are here produced, and composed, altogether, or in part, of iron. The glass manufactures of the city are, also, well known throughout the nation. Those are comprised of all kinds of window and green glass, and the cut glass-ware here made is of great excellence. In exhibiting this condensed and general view of Pittsburgh enterprise, it is quite probable that our statistical account may not be entirely accurate, in consequence of recent circumstances, tending to disturb the ordinary current of its business; yet it will furnish as correct a sketch as we can obtain, of the commercial position of this prominent manufacturing settlement.

Since the foregoing statement was prepared, an intelligent correspondent of the "North American and United States Gazette," a journal published in Philadelphia, has furnished the following sketch of the present condition of Pittsburgh, which will, doubtless, be read with interest and gratification by all who take an interest in the industrial growth of the country :—

Pittsburgh, to one who carefully examines its vast resources, is nothing short of a wonder. Its trade, its enterprise, its progress, its extent, its public spirit, its unfailing energy, its population, and its edifices, are all calculated to inspire astonishment, and to produce a sentiment of deep admiration and respect for a people, who by their own efforts and industry have raised up a great city on these Western waters, and have converted a wilderness into the peaceful homes of men, brought around them a prosperous commerce, and given a noble impulse to all the beneficent influences of enlightened civilization.

But as yesterday the devouring element laid in ashes the most thriving and the most valuable portion of this city. Millions in a single night were scattered to the winds, and after years of toil and care, he who, at rising, counted his thousands of honest gain, found himself at evening a beggar, and without the shelter of a roof. Nothing daunted, however, they put their own shoulders to the wheel—they removed the ruins—now there is hardly a vestige of that scene of devastation; and what was at first considered an irreparable misfortune, has resulted in a permanent benefit; for it has been the means of building up a substantial and imposing city, with durable materials, thus enhancing the value of real estate, and offering larger inducements for settlement.

Taking into the estimate, its dependencies of Birmingham, Sligo, Alleghany City, and the like, which lie across the Monongahela and Alleghany Rivers, the population of Pittsburgh ranges between 60,000 and 80,000! Who supposes this at a distance, and who imagines that her annual export trade extends from \$15,000,000 to \$20,000,000? We who have been in the habit of regarding Pittsburgh as a thriving country town, with an energetic and driving community, find ourselves grossly deceived, after a stroll of half a day through its streets. It is a large and growing city, and in a short time is destined to be among the very first of the commercial depots of the West. She has the position, the credit, and the will to occupy an important place in the public eye, and her destiny is an onward one, beyond all peradventure.

From the balcony of the hotel, I have just counted some thirty odd steamers lying at the quay; some getting up steam for a trip of a thousand or more miles—others that have just arrived, and all distinguished by signs of activity and industry. In the business season, as many as twenty-five steamboats arrive and depart daily.

Look in what direction and at what time you may, and the smoke of a thousand chimneys is seen ascending—the din of two or three hundred engines is heard, and the fires of innumerable furnaces and factories blaze before the eye. Steam-power is employed for every conceivable purpose, and in almost every department of life. Leaving out of view its use in driving heavy machinery and for manufacturing, it is now introduced successfully into domestic economy. The kettle which boils your water, the last upon which your boot is fitted, and the cracker which supplies the breakfast-table, are each prepared by that universal labor-saving agent. Still we are but at the threshold of its application, for who can now estimate the influence and adaptation of steam-power twenty years hence?

The public spirit of this city and the county is illustrated in many of the buildings and works. The Court-House here is one of the most complete and costly edifices of the kind in the country. I have never seen one that bears comparison with it in style, dimensions, or architecture. It was erected at a cost exceeding \$200,000.

The water-works on the Alleghany, by which the city is supplied, claim a careful inspection. The engine is 275 horse-power. There are two immense force-pumps, each of which is capable of discharging 180,000 gallons an hour, up an

elevation of 160 feet. The water is collected in a spacious vat below, from which it is forced into an upper receiver, and from thence passes into a discharging reservoir. This process purifies the element, and operates as a mode of filtration. The water is clear and palatable.

All that has been said of the splendid wire suspension bridge across the Monongahela, is fully warranted by its admirable design and perfect workmanship. It stands without a rival in strength or symmetry. Had the massive stone piers upon which the iron columns rest, been raised a few feet, the effect and convenience would have been improved in an important degree. The spirited company which undertook the enterprise had the general prostration of the conflagration to encounter, and they are worthy of all praise for this monument of their zeal and energy. \$60,000 was the outlay for the bridge, which stretches some 1,500 feet.

There is also the aqueduct across the Alleghany, 1,100 feet in length, a work accomplished at large cost of time and money.

In manufactoryes of all sorts, Pittsburgh may be said to monopolize the trade of the West and of a great portion of the Lakes. Her steam-power is furnished at a cheaper rate than it can be supplied at the East. She has coal and iron in abundance at her doors, and the advantage in these elements places her comparatively beyond competition.

There are 11 rolling-mills in and about Pittsburgh. Of these, 8 are capable of producing 4,000 tons each of manufactured iron annually, and employ nearly 150 hands to the mill. This iron is of a superior quality, and is used for boilers, axles, wire, sheets, and the like. The pig metal is supplied principally from the charcoal furnaces along the river. The other mills are of smaller dimensions and power, but are constantly increasing their facilities and extent of operations. At the extensive and well-conducted mill of Messrs. Wood, Edwards & McKnights, a remarkable specimen of workmanship was pointed out to me. Something like 75,000 tons of pig metal are consumed a year between the mills and foundries.

The manufacturing of glass is carried on very largely here and along the Monongahela. The cheapness of fuel is the great incentive. In the immediate vicinity, there are 7 flint glass factories, 6 for window glass, 5 for green glass, and 1 for black glass. They employ 25 or 30 men each, and more than \$1,000,000 is invested in these works.

There are also some fourteen others upon the Monongahela, the business of which is transacted in Pittsburgh, and which is denominated "country glass," from being a shade inferior to the quality manufactured in the city.

A large establishment, known as the "Novelty Works," and owned by Messrs. Livingston, Roggen & Co., deserves the inspection of every stranger. Their principal business is the manufacture of platform-scales, counter-balances, patent coffee-mills, and the like. It seems, however, to contain every invention of the never-tiring genius of Brother Jonathan, and one is bewildered amidst the endless variety of useful and attractive articles; 147 men are required to carry on this little world of wares, and the proprietors are now enlarging its proportions far beyond the original dimensions.

The nail factories here, are conducted on an extensive scale. That of Dr. Shoenberger has a capacity of 2,000 kegs a week, and there are others nearly as large. The present demand is greater than the supply, and the orders extend from Buffalo to New Orleans.

It is estimated that 60 steamers will be constructed during the present year.

The trade with the lakes has doubled itself every year, since 1844, owing to the facilities of communicating through the two great avenues to Erie and to Cleveland.

It is a striking fact, too, that the assessments for the county, which amounted to \$14,600,000, in 1845, now reach \$19,850,000, or about 35 per cent increase, most of which is in favor of Pittsburgh.

Besides these various departments of enterprise, this city is also distinguished in cotton manufactures. I annex a table setting forth their extent:—

STATEMENT, SHOWING THE NUMBER AND EXTENT OF THE COTTON FACTORIES OF PITTSBURGH.

Companies.	Bales.	No. of spindles.	Weight of yarn daily.	Weight of cloth daily.	Yards of cloth per annum.	No. of Looms.	Product.	
						No. of hands.		
Hope.....	3,100	6,500	4,000	.....	.....	275	\$216,000	
Eagle.....	3,000	5,700	3,800	.....	.....	250	205,200	
Union.....	1,600	4,500	1,500	500	.....	200	40	116,500
Pittsburgh.....	1,600	5,300	.....	2,000	1,620,000	200	150	138,000
Penn.....	2,400	6,200	.....	3,000	2,410,000	260	210	207,000
Starr.....	800	2,500	.....	900	729,000	80	75	62,100
Gray's.....	400	1,200	500	.....	.....	40	....	27,000
Total.....	12,900	31,900	9,800	6,400	4,759,000	1,305	475	\$971,800

There are some 20 or 25 foundries in successful operation, in the manufacture of cannon, cotton-presses, sugar-mills, ploughs, and the like.

A much better feeling is growing up in favor of the great central line of communication from Philadelphia, and the partiality which was once entertained for a connection with Baltimore is now fast subsiding. There are those, of course, who would prefer to open both lines, in order that Pittsburgh might enjoy double advantages; but if the question is resolved into one of preference, there can be no serious doubt of the course which this community will adopt. This important subject cannot, in my humble judgment, be urged too often or too strongly upon public attention. To Philadelphia, I consider it as equal to the *lease of a new life*. No community which has attained her position can extend beyond the natural growth of her population and commerce, without the infusion of some new and valuable element, and without diverting from other channels an amount of trade, that must swell the aggregate wealth and importance. This is a self-proving proposition, and I feel convinced the commercial records will sustain it. So far as my limited observation goes, there are now two great sources from which Philadelphia can derive an increase of prosperity, to secure which, capital must abandon its hiding-places, and new vigor must be enlisted. The plain issue is one of advancing or retrograding; and *immediate action* should be the motto of every man who intends to perform his part faithfully, and to assume his just proportion of the general responsibility.

The first source is to concentrate, by new roads and by lateral branches, the bulk of the coal and iron trade. I have shown, in former letters, the efforts of New York to divert this interest, by connecting two of the coal fields with her improvements. There are people, and too many of them, unfortunately, always ready to scout at such suggestions. Their wisdom appears when the evil is beyond remedy. Any reflecting mind, which contemplates the value of the prize, must see that New York is in earnest in her endeavors; and it cannot but be apparent, that, unless Philadelphia moves promptly, she must be the loser of at least one-half of her principal staples of wealth.

The other, and the more important source, to which I refer, is the construction of the Central Railroad. The three great States of New York, Massachusetts, and Pennsylvania, are now competitors for the trade of the West. What is the interest of the first, is the interest of the second, and hence they are in a manner banded against Pennsylvania. Which ever of these rivals commands the first perfect connection, will secure the current of travel and commerce. I need not say how difficult it will be to turn the tide, once the channel has been marked. To show the zeal of the East in this matter, it is only necessary to state, that Boston furnished \$1,000,000, a few years ago, to facilitate the road between Cincinnati and Sandusky. But 32 miles are now unfinished, and it will be but the work of a little while to run a continuation along the lake shore, to connect at Dunkirk, and to extend to Buffalo. An inducement is now left unemployed to persuade the travel by Lake Erie.

It is within the power of Philadelphia to control this vast intercourse of the West. After the clear, practical, and statesman-like expositions of E. Cresson, Esq., upon this subject, it is useless for me to present arguments in its behalf. A glance at the map cannot fail to carry conviction of its necessity, practicability,

and value ; and an examination of the resources connected with it, must remove every doubt as to its productiveness. If Philadelphia will make this connection, as she ought to do, her future prosperity is put past chance ; if she neglects it, she has herself alone to blame. Pittsburgh will carry it on Westward, and the artery, from the Mississippi to the Delaware, will be without a broken link in its long and winding course. Now is the time for action. Now is the time for capital to come forward, and to put every engine in operation. Let it be met with lukewarmness, and Philadelphia will find it no easy task to hold her own three years hence.

Art. VII.—RESOURCES OF THE WEST :

WITH REFERENCE TO MANUFACTURES AND INTERNAL IMPROVEMENTS.*
TO THE EDITOR OF THE MERCHANTS' MAGAZINE, ETC. —

SIR—In the February number of your valuable Magazine, you copy a statement of C. G. Childs, Esq., relative to the coal mines of Eastern Pennsylvania. From this it appears that nearly *thirty-four millions of dollars* have already been expended in the construction of railroads and canals to transport that coal to tide-water and the point of consumption ; and that the interest on this amount is, perhaps, the smallest part of the cost of delivering the coal ; the most important items of cost being the labor in keeping up these works—the cars, boats, locomotives, &c.—and on the coal *in transitu*.

I observe, also, in almost every one of your numbers, an able paper, showing the vital importance, to one or the other of the great Eastern cities, of a railroad or canal to connect that particular city with, and to control the trade of the great West. Each writer takes it for granted, that our cotton, hemp, wool, lead, &c., are to be forever sent to Europe, or the Eastern slope of the Alleghanies, to be manufactured ; that we are always to furnish provisions to the operatives who there manufacture these raw materials ; and that we are to remain content with a portion of the manufactures, as full consideration of our raw material and provisions. Now, allow me to suggest, that we do not intend, much longer, to pay the dividends on these lines of intercommunication. We are very nearly of age, and think seriously of setting up for ourselves. In their recently built steam manufactories, our New England brethren have shown us that water is not the only, or the cheapest motive-power. The statistics, you and others have so carefully gathered, of the enormous cost of the Eastern steam-power, have opened our eyes to the vast mineral treasures under and around us. Ten years since, we were hardly thankful for our rich plains, because nature had not given us falls of water. Now, we hear that steam-mills are erected within the sound of the Falls of the Merrimack, and moved by the power brought from Nova Scotia and Pennsylvania—dug up hundreds of feet beneath the surface of the earth—and which had swelled the dividends of railroad and canal stockholders, and

* The writer of this communication, a highly respectable citizen of Louisville, (Kentucky,) says, in a note to the editor—"I have prepared the above article for your Magazine, and will furnish all the statistics within my reach, in future articles, if the subject is of interest to you. I think I can show that, in position, power, cheapness of living, &c., we can make cotton goods 25 per cent lower than anywhere else." As we have no local or private interest (aside from that of the Magazine) to subserve, we shall cheerfully publish whatever our esteemed correspondent may be inclined to furnish.—[EDITOR.]

the profits of the owners of fleets of coasting vessels. All this astonishes us. It makes us look around to see if we must always be clothed at such a cost. We study the geography and geology of our valley, and to our surprise, we find coal beds greater in extent than all the other coal measures of the world. Besides the thousands of square miles of the Western part of the Appalachian coal field, which underlies Western Pennsylvania and Virginia, and Eastern Ohio and Kentucky, we have the great Illinois coal field, covering at least 40,000 square miles, and in the very centre of the Mississippi Valley; and, besides, the coal field of unknown extent, but of great richness, on the Osage River, and other Southern tributaries of the Missouri. On the very banks of our navigable streams, on the Monongahela, Ohio, Green, Wabash, White, and Illinois Rivers, where there are innumerable sites for manufacturing cities, we have coal enough to turn, for centuries, all the wheels, rollers, and spindles, ever made. This coal, we find, not from 1,000 to 2,000 feet in the bowels of the earth, but in the hills, and above the ordinary level of the country. We reach it by drifts, instead of shafts—horizontally, not perpendicularly. Our mines are self-draining—self-ventilating. We require no heavy expenditure for railroads and canals. Above this immense and accessible power, nature has bountifully placed the richest soil on earth, which is soon to be covered—indeed, now is covered, with millions of industrious people; to which millions of the oppressed and starving *artisans* and agriculturists of Europe are looking, as did the Israelites at the promised land. We are rejoiced at the extension of the railroads and canals I have referred to. We shall soon need them to transport *our* manufactures to the East. Yours, &c.,

Louisville, Nov. 13, 1847.

H. S.

Art. VIII.—ENGLISH CHANCERY REPORTS.*

ANY one inclined to hope, or to fear, (according to his turn of mind,) that Chancery Law is losing ground in this country, must be convinced of the contrary, we think, by the elegant, accurate, and substantial manner in which Messrs. Banks, Gould & Co., apparently find their account in publishing their series of English Chancery Reports, and in which the present volume, No. 30 of the series, is prepared. This volume, of 666 pages, contains the whole of Volume 4 of Hare's Reports of the decisions, made by Vice-Chancellor Wiggram, from July 4, 1844, to 8th May, 1846. Mr. Dunlap, the American editor, who edits the entire series, has furnished notes with references to the American decisions and text-books, several of some length, and one, at least, on an average, to each case. But, above all the other merits of this volume, better than thick white paper, good type, and clear impression, in which it fairly rivals English law books, is the highly satisfactory feature of this and all the later numbers of the series, which will be found, we are assured, in all the future numbers, that the decisions are given entire, without omission, and without curtailment.

* Reports of Cases Argued and Determined in the English Court of Chancery, with Notes and References to both English and American Decisions. By John A. Dunlap, Counsellor at Law. Vol. XXX. Containing Hare's Chancery Reports, Vol. IV., 1844, 1845, 1846; 7, 8, and 9 Victoria. New York: Published by Banks, Gould & Co., Law Booksellers, No. 144 Nassau-street; and by Gould, Banks & Gonld, No. 104 State-street, Albany.

Wigram is one of the new English Equity Judges, and was appointed, a few years since, on the first creation of two Vice-Chancellorships, in addition to the Vice-Chancellor of England. Like all English judges, who never think of stepping upon the bench, except from the top rung of the bar, he was eminent at the bar; but more particularly well known by his Points in the Law of Discovery, and Essay on Wills—topics of leading consideration in equity. These little treatises, whose clearness, and closeness of reasoning, and terseness of style, great excellences in themselves, admitted a brevity scarcely less desirable, are considered, by those best able to judge, as among the ablest of the many modern treatises of the law. They belong to the class of books which are works of *promise*, as well as performance. They indicate the very structure of mind which best fits a man for the duties of a judge; that nice discrimination, that power of intellectual dissection, so to speak, which separates, at once, the material from the immaterial matter of a case; and, removing everything extraneous in which the true issues lie buried and concealed, lays them open, bare to the view.

MERCANTILE LAW CASES.

INSOLVENT LAW OF MASSACHUSETTS—THE WANT OF A SEAL RENDERS A MESSENGER'S WARRANT INVALID—SECOND PETITION UPON THE SAME FACTS—EFFECT OF WARRANT AND PUBLICATION—LIEN BY ATTACHMENT—JURISDICTION—STATE LAWS—CONSTITUTIONAL LAW—TRUSTEE PROCESS.

In the Circuit Court of the United States, Massachusetts District, September, 1847, at Boston. Perry Manufacturing Company, *v.* Brown, Harris & Co., and Trustees.

This action, with two others between the same parties, was upon notes for about \$7,000, specially payable in New York. The plaintiffs are of another State, and the defendants of Massachusetts. The defendants have taken the benefit of the Massachusetts insolvent act. It was admitted that the claims were not barred by the insolvent proceedings, and the question was upon the attachment. The attachments were made after the publication under the insolvent act, and before assignees were appointed, and before the attached property had been taken possession of either by the messenger or the assignees. The plaintiffs claimed the property by reason of their first actual possession, suing in the national court, upon demands not affected by the local insolvent law. The assignees claimed by virtue of the local act, which vests in them all the debtor's property, whether taken possession of or not, by relation back to the publication.

The plaintiffs also contended that the insolvent proceedings, under which the assignees claimed, were void, inasmuch as there had been prior proceedings, including publication and choice of assignees, which had been abandoned without application to the Supreme Court, by the authority of the master alone, because the warrant was proved to have been without a seal; and the second proceedings were upon the same state of facts with the first, no new indebtedness being averred or proved.

WOODBURY, J., delivered the opinion of the court in favor of the assignees, and made the following points.—

1. The want of a seal to a warrant to a messenger, in proceedings in insolvency, is fatal to its validity. The master in chancery is justified, when discovering it, to treat the whole proceedings as void, and to allow a new petition and warrant.
2. The debts set out in the second petition, to the amount of \$200, are presumed to be the same referred to in the first petition; the second being a substitute, and not an additional petition for a new case.
3. The warrant to the messenger, and

the publication in the newspapers under the insolvent law of Massachusetts, divest the debtor of his estate, so that title cannot be made under or from him after that date, by attachment or trustee suit. 4. The creation of liens or titles in those ways, is governed by the local and State laws, where no acts of Congress or articles of the constitution control them. The decisions by the State courts govern the construction of such State laws. 5. The decisions, which have been made by the courts of the United States against the validity of insolvent discharges by State laws, in actions on contracts made or to be performed out of the State and prosecuted in those courts, by non-residents, are decisions, not on the formation of liens and titles, but on discharges from them and from contracts. 6. Such decisions rest on acts of Congress as to forms of process, and on clauses in the constitution against State laws impairing the obligation of contracts, and on the principle not to give to State laws an extra territorial operation. 7. Where the insolvent proceedings led to an appointment of a messenger, and a valid warrant and publication, in May, 1846, but no possession was taken of the estate situated in Massachusetts, nor actual notice to a holder of it till the 24th of November in that year, yet a trustee action, in which the writ was served the 18th of June, 1846, on the holder of the property, will not defeat the inchoate title obtained by the messenger in May, and afterwards on the 18th of June, 1846, conveyed by him to the assignees. 8. The estate, in this case, being situated within the limits of Massachusetts, and the jurisdiction of her laws and courts, it is not exonerated from their operation, nor from the rule, that the title to it is to be governed by the *lex rei sitae*. 9. Nor does it come under any exception by the debtor's residence *ex domicilio*, as that was also in Massachusetts; and the creditor being a non-resident, and the contract payable abroad, and the trustee action in a court of the United States, does not make the estate foreign, or the laws foreign, which must govern the formation of the lien, or the transfer of the title.

It is understood that the cases are to be carried up to the Supreme Court of the United States.

BILLS OF EXCHANGE AND PROMISSORY NOTES.*

A check drawn in this State upon a bank in Mississippi, payable in current bank notes, is not negotiable.—*Little v. The Phoenix Bank*, 359.

2. Where a negotiable check, payable on demand, was drawn in this State upon one of the Mississippi banks, and not presented for payment until more than ten months after its date, the bank having suspended a few days before the presentment, and being at the time indebted to the drawer: *Held*, that the holder could not recover against the drawer, as the latter had sustained loss by the delay in making presentment.—*Ib.*

3. One who endorses a negotiable promissory note in blank, merely engages to pay upon the usual conditions of demand and notice; and parol evidence is not admissible to vary the legal effect of his undertaking.—*Hall v. Newcomb*, 416.

4. Where F. made a promissory note payable to H. or order, and N. endorsed it in blank for F.'s accommodation, with knowledge that the latter intended to obtain money upon it from H., who accordingly took the note and advanced the money: *Held*, that N. could not be made liable to H. as guarantor or maker, but only as endorser.—*Ib.*

5. The cases of *Herrick v. Carman*, (12 Johns. R. 159,) and *Tilman v. Wheeler*, (17 Ib. 176,) commented on and explained, and that of *Nelson v. Dubois*, (13 Ib. 175,) overruled.—*Ib.*

6. A notarial certificate, stating that notice of protest was served, &c., by putting the same in the post-office, directed, &c., is a sufficient compliance with the statute, (2 R. S. 212, § 46, 2d ed.,) though it do not expressly state by whom the service was made.—*Barber and others v. Ketchum*, 444.

7. Since the act of 1835, (Sess. L. of 1835, p. 152,) the certificate need not specify the reputed place of residence of the party notified, nor the post-office nearest thereto.—*Ib.*

8. A written order or request by one person to another, for the payment of a

* Selections from 7 Hill's (N. Y.) Reports.

specified sum of money to a third person, absolutely, and at all events, is a bill of exchange, and the acceptance of it must be in writing.—*Pope v. Luff*, 577.

9. Where such an order was presented for acceptance, and the drawee refused to accept, but promised to pay the person in whose favor it was drawn by a given day: *Held*, that the latter could maintain no action against the drawee, though he had funds of the drawer in his hands at the time, and ought in justice to have accepted.—*Ib.*

INSURANCE.

In an action on a policy issued by the Onondaga County Mutual Insurance Company, it appeared that the company, with full knowledge that the policy had become void by an alienation of the property insured, assessed the plaintiff's premium note on account of losses which occurred after the alienation, and collected the assessment: *Held*, that this did not revive the policy, but was consistent with the right of the company to treat it as void.—*Neely v. The Onondaga County Mutual Fire Insurance Company*, 49.

2. In an action on a policy issued by the Chenango County Mutual Insurance Company, by which they undertook to insure the plaintiffs \$750 on their paper-mill, and a like sum on certain personal property therein, the defence was, that the application did not mention all the buildings standing within ten rods of the mill, agreeably to the following condition annexed to the policy: "Such application shall contain the place where the property is situated; of what material it is composed; its dimensions, number of chimneys, fire-places, and stoves; how constructed, and for what occupied; its relative situation as to other buildings; distance from each, if less than ten rods; for what purpose occupied, and whether the property is encumbered; by what and to what amount; and if the applicant has a less estate than in fee, the nature of the estate." *Held*, that the condition related exclusively to applications for insurance upon buildings, and therefore furnished no ground of defence to the plaintiffs' claim respecting the personal property covered by the policy.—*Trench v. The Chenango Mutual Insurance Company*, 122.

3. A warranty in a policy must be strictly complied with, or the insurance will be void.—*Ib.*

4. In a time policy upon a vessel for one year, from the 21st of January, 1835, it was stipulated that, if she was at sea at the expiration of the term, the risk should continue, at the same rate of premium, until her arrival at the port of destination. She sailed from New York, intending to proceed to St. Barts and Curacao, and then return; but after landing at those places, she went to St. Thomas for the purpose of taking in cargo, where she arrived on the 6th of January, 1836. Having encountered severe storms on her way to St. Thomas, she was necessarily detained there for repairs until the 22d of January, 1836, when she commenced taking in cargo, and sailed for New York on the 30th, but was stranded and lost on the voyage. *Held*, that she was not at sea when the time specified in the policy expired, but in a port of destination, and that the underwriters were therefore discharged.—*Hutton v. The American Insurance Company*, 321.

5. But if a vessel is driven by stress of weather from her voyage into a port of necessity, or is captured and carried there by superior force, she is still at sea within the meaning of such a policy. *Per WALWORTH, Chancellor*.—*Ib.*

GENERAL AVERAGE.

In the Superior Court, (New York,) Judge Oakley presiding. *Sherwood & Boorman v. Henry Ruggles.*

This was an action to recover \$700, for a general average for a cargo shipped by the defendant on board the *Cornelia*, from Swansborough, North Carolina, to New York. The vessel sailed on the 22d of September, 1845, and in a few hours after, when off the bar, she sprung a leak in a gale of wind, and the crew refused to proceed with the vessel, and she bore away for Swansborough; but being un-

able to cross the bar, she went to Beaufort, North Carolina, where a survey was held on her, and the vessel ordered to be repaired. She was there fitted for sea, at an expense of \$396; and on the 17th of October, while lying alongside the dock, about to take in her cargo, a gale of wind caused her to thump against the dock and to strike on a sunken wharf, which again injured her so much that the captain wrote to the owners, in New York, to inquire what he should do in the matter, and the owners sent on a person to examine her and get the vessel repaired, which was accordingly done, and she completed her cargo and sailed from Beaufort for New York, on the 5th of December, 1845; and on the 12th of that month she encountered a dreadful hurricane, which damaged her so much that she was obliged to put back to Beaufort, where the master left her and came on to New York; and by an arrangement between the plaintiff and defendants, a vessel was sent to Beaufort, which brought the cargo, being turpentine, to New York; and after its arrival here, it was valued by average agents, to enable them to apportion on the cargo the rateable share of the general expense, of twice putting back to Beaufort, unlading and lading the vessel, and repairing her. For the defence it was alleged that the vessel was a very old one, and unseaworthy. But it was shown by the plaintiff, that though nominally old, she had been recently nearly rebuilt, and was in good condition at the time of the voyage. It was also set up, that the delay which was occasioned by the captain's writing to his owners at New York, and waiting for their answer, forfeited the plaintiff's claim to compensation. It was also objected, that there was no testimony to show that the cargo was brought from Beaufort by the plaintiffs and delivered to defendant.

The court briefly charged the jury that the plaintiffs were bound to furnish a seaworthy vessel, and that if they had not done so they could not recover. But if the vessel was seaworthy, and the delay and expense unavoidable, the jury should find for the plaintiffs. Verdict for plaintiffs \$795 97.

BANK CHECKS—ACTION TO RECOVER THE AMOUNT OF A MEMORANDUM CHECK.

In the Court of Common Pleas, (Boston, Massachusetts,) Judge Merrick presiding.

This was an action of assumpsit to recover the amount of a memorandum check, in the following words:—

Memo.	Bank.	May 20th, 1846.
Pay to William Ward, Trustee, \$572, on demand.		
To the Cashier.		LEMUEL WILLIAMS.

Evidence was offered, tending to show that the defendant, being a member of the Boston Mining Company, owning about 286 shares therein, was assessed upon his shares to the amount of the memorandum; that the clerk of the company received the check in payment of the assessments, although, by the articles of association, the said shares were subject to forfeiture, by reason of the non-payment of said assessments; that when said check was received, a receipt was given by the clerk for the amount of the defendant's assessment; and that the check had been received by the plaintiff, as one of the trustees of said company, and charged to him and accounted for by him in the books of the company as cash; that the doings of the clerk in the premises had been ratified by the plaintiff; that on two occasions the defendant had promised to pay the amount of the check to said clerk; that since the date thereof he had authorized the clerk to sell said shares, or some of them, on defendant's account; a vote was passed by the association, directing all memorandums in the treasurer's possession to be sued; that the check was payable to William Ward, *Trustee*, and that the other persons who were joint trustees with Mr. Ward knew of these transactions, and never objected thereto.

The defendant's counsel objected to the plaintiff's right to maintain his action: 1st, because the memorandum check was not any evidence of indebtedness; 2d, from want of consideration; 3d, because the plaintiff had no right to maintain the

action in his own name, nor as trustee, he being only one of three trustees; and 4th, because there was no privity of contract between the parties.

MERRICK, J., ruled, that if the jury should find that the said assessments were due, to the amount of the memorandum, to the Mining Company, of which the plaintiff was one of the trustees, and treasurer; and if the defendant gave his check in payment for these assessments; and if the clerk acted for the plaintiff, in receiving said check in payment as aforesaid; and if the plaintiff ratified his doings, and became, by having received said check, personally responsible to the company, as for the amount of the memorandum in cash, then there was a sufficient legal consideration to maintain the promise of the defendant.

The jury, by consent, found a verdict under this ruling in favor of the plaintiff, in the sum of \$594 88.

ACTION ON A POLICY OF FIRE INSURANCE.

In the Supreme Judicial Court of Massachusetts, before Judge Wilde. Edward Brinley v. National Insurance Company, 1847.

This was an action on a policy of Fire Insurance, by which George Brinley was insured for a year on a store in Dock Square for \$4,000. The policy was assigned to the plaintiff, after the loss, with the defendant's consent, and no objection was made to the action being brought in the plaintiff's name. The store was totally destroyed by fire during the term, and rebuilt upon a different plan, so that the cost of the new building could not be taken as a measure of the loss upon the old one. There were varying estimates of the cost of erecting a new building similar to the one burnt, and much conflicting evidence, all of which was left to the jury.

The defendants contended, that, as a store of similar dimensions and plan with the old one, built of new materials, would be more than an indemnity for the loss of the old one, a deduction ought to be made from its estimated cost, for the difference of value between the old and such new store, in order to estimate the actual loss, and offered evidence tending to show what that difference would be in this case. But the jury were instructed that the contract was a contract of indemnity; that the defendants were bound either to replace the building in as good a condition as it was before the fire, or indemnify the plaintiff for his whole loss by a payment in money; that the old materials might be used in rebuilding, so far as they were suitable, but if it was necessary to use new materials, no deduction should be made on that account, though the new building might be more durable, and for some purposes more valuable, than the old one.

The jury returned a verdict for the plaintiff, for the sum of \$3,600, and the defendants thereupon took exceptions to the rulings of the Court.

WILDE, J., delivered the opinion of the Court. The rule with regard to partial or constructive total losses in marine insurance, depended, first, upon usage, and was then introduced into marine losses, but had never been adopted in cases of fire insurance; and the charge upon this point, therefore, was correct. There was no case to support the other principle. The question was, what was the rule of damages? The plaintiff contended that it was the actual loss, to be ascertained by the expense of restoring the property, without any deduction; and cited 2 Greenleaf on Evidence, Sec. 407. But the cases there cited lay down a different rule. By that contended for by the plaintiff, the insured in many cases would recover more than his actual loss. Now, this was founded upon an erroneous construction of the contract of insurance, that the Company was bound either to pay the full cost, or repair. But such was not the case: the clause was inserted for the protection of the insurers. If they do not elect to repair, they are entitled to a fair estimate of the loss. In the present case, a new and different building was erected, and the cost could not be ascertained therefrom. In all cases, when the rule of damages was established by law, the jury were to decide the amount of the damages. The instructions to the jury, therefore, upon this point, were incorrect, and the defendants were entitled to a new trial.

COMMERCIAL CHRONICLE AND REVIEW.

CHANGE IN THE ASPECT OF THE MONEY MARKET—DISCREDIT OF EXCHANGE—DRAIN OF SPECIE—BANK PANIC—CONDITION OF NEW YORK BANKS—MOVEMENT OF SPECIE IN NEW YORK—PRICES OF SPECIE—FALL IN STOCKS—PRICES OF UNITED STATES STOCKS—FALL IN COTTON—SITUATION OF CROP—OPERATIONS IN LANCASHIRE—MILLS AT WORK—LIST OF FAILURES IN GREAT BRITAIN—INNOVATION IN BANK CHARTER—FAMINE IN IRELAND—STOPPAGE OF RAILROADS—PROSPECT OF TRADE, ETC., ETC.

DURING the past month, a great change has overtaken the face of financial affairs, arising from an almost utter loss of credit in exchange operations on England, by which international payments seem to have resolved themselves into their original elements of specie shipments, and the absorption of large sums in transit, to avoid which, bills of exchange were invented. Wherever trade exists between two countries, large sums are mutually due both, and are cancelled by an interchange of indebtedness between indebted individuals. This system is based on mutual confidence, and the undoubted credit of each of the individuals whose several accounts go to make up a nation's balance. The moment discredit overtakes one set of drawers, the whole fabric topples down, all bills are avoided, and specie alone becomes the medium of payment. There never was a time when so universal a discredit as now fell upon English bills, not only in America, but throughout the continent of Europe, as well as the commercial world. In all the European cities, merchants having dealings with England began, as soon as the crash commenced, (in the early part of August,) to accumulate cash balances, stop purchases, and turn goods into cash, in order to fortify themselves against the return of bills from London. The vast amount of capital for which bills were running on England, from all over the world, became at once dead; because all parties interested immediately strove to accumulate an equal amount against the possible dishonor of their bills. The revulsion rolled forward, and discredit spread, until all the property shipped to England became, as it were, dormant, or annihilated for the moment. The bills drawn against it were valueless; and, instead of forming the means of paying the sums due for goods, were disregarded—and an equal amount of specie had to be collected, and shipped out of the country, which has thus sustained an actual temporary loss of many millions of dollars, until that property can be recovered.

This temporary loss of capital has produced serious results, by alarming the banks, which are in a very extended condition, and are anxious lest the demand for specie for shipment should become too extended before the capital now dormant, through English discredit, shall be recovered. This may be speedily, by the arrival of better news, which shall indicate the revulsion to have spent its force; and, by so doing, restore confidence in bills, and again make available the large export capital of the country. Should the revulsion continue, it must soon be the case that the bills will mature on the other side, and the proceeds return in specie; exhibiting the spectacle of large freights of the precious metals crossing each other on the ocean, because bills on the "merchant princes of London" are

no longer to be trusted. It has been usual for the banks of New York to expand their movements from August to November, in which quarter the imports are usually large, and the crops, both agricultural and of the South, require more facilities, that subside as the season advances, and bills multiply against exported produce. This year, the banks, up to November, carried their operations to a pretty high figure. The following shows the immediate means and liabilities of the banks, up to November 1st, 1847:—

IMMEDIATE MEANS AND LIABILITIES OF THE NEW YORK BANKS.

<i>Immediate Liabilities.</i>	Nov. '43.	Nov. '45.	Feb. '46.	Nov. '46.	Feb. '47.	May. '47.	Aug. '47.	Nov. '47.
	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	Dollars.	<i>Dollars.</i>
Deposits.....	27,380,160	31,773,991	29,654,401	30,629,196	31,830,595	35,799,956	36,781,060	35,056,818
Nett circulation	12,952,045	19,366,377	18,407,733	19,847,453	17,699,736	21,543,626	22,405,517	23,816,881
Due banks....	4,941,414	3,296,249	4,662,073	3,660,361	4,905,411	6,944,464	9,830,425	6,308,777
Canal fund....	1,157,203	1,581,330	896,843	581,737	911,680	534,822	1,990,069	1,603,119
United States... Total.....	1,645,330	3,002,649	2,580,711	1,006,330	342,766	178,517	.....	.....
	48,076,142	59,020,596	56,201,761	55,817,077	55,780,181	63,001,387	70,307,091	66,825,595
<i>Immed. Means.</i>								
Specie.....	11,502,789	8,884,545	8,361,383	8,048,384	9,191,254	11,312,171	11,983,124	9,107,920
Cash items....	3,102,856	5,947,585	6,370,302	7,786,699	7,552,068	8,793,286	9,370,323	8,703,577
Total.....	14,605,645	14,832,190	14,731,685	15,835,083	16,743,322	20,105,457	21,353,447	17,811,497
Excess liability's.	33,479,607	44,188,476	41,470,071	39,971,994	39,036,859	44,893,930	48,953,644	49,014,098
Loans.....	62,392,373	74,780,435	71,897,580	71,950,191	69,806,358	76,688,543	80,740,677	80,258,529

It is probably the case that the expansion of the New York banks—that is to say, the excess of immediate liabilities over means—was greater, November 1st, than ever before; and the line of discounts, although more extended, yet very active. The movements of specie for the quarter ending with October were, for the port of New York, nearly as follows:—

	Duties paid.	Export.	Import.	In Assistant Treasury—
August.....	\$3,337,541	\$66,000	\$195,155	August 1..... \$2,187,836
September.....	2,096,604	550,925	94,548	September 1. 6,426,356
October.....	1,229,296	674,548	101,170	November 1. 4,551,841
Total.....	\$6,663,441	\$1,291,473	\$390,873	

This large movement of specie reduced the amount in the city banks from \$10,769,732, in August, to \$7,779,000, in November; and, inasmuch as that the imports fell off with the close of October, it was supposed that the banks, which had contracted towards the 1st of November, when their accounts are returnable to the comptroller, would resume their discounts. Continued adverse news from Europe, however, was unfavorable to the negotiation of bills, and enhanced the disposition to ship specie. Sovereigns advanced to \$4 87 $\frac{1}{2}$, five-franc pieces to 94 $\frac{1}{2}$, and Mexican dollars to 1 $\frac{1}{4}$ a 1 $\frac{1}{2}$ premium, and the shipment became active, although the best bills could be had at 9 $\frac{1}{2}$, and were dull at New Orleans at 3 $\frac{1}{2}$ a 4 per cent; presenting a singular anomaly, and showing that heavy losses were incurred in the shipments of specie, rather than trust to the payment of bills in England. Sovereigns have the advantage of being cash on arrival, while bills could not be discounted or made available in the stringent state of the British market. In this state of affairs, we observe the importance of a prompt coinage of the metals that arrive. If sovereigns are immediately converted into American gold, their value as a remittance abroad is greatly injured. If a house now draws on itself at sixty days, and sells the bill, shipping sovereigns against it in the same vessel, it has the use of money sixty days before the bill matures. If none but American gold could be procured, that operation would not work; as several weeks would be required to turn it into money in England. The packets of the

1st of November carried out considerable sums, and the shipments continued, until the amount reached near \$2,000,000 by the middle of the month. This was a serious drain in the state of affairs with the banks presented in the above table, and the institutions immediately adopted the most stringent measures. A very small proportion, only, of the notes offering, were discounted, and loans on stocks were called in rigorously. Importers' paper, particularly, was struck at; and first-class auctioneers' paper sold from 14 a 2 per cent per month, while it became impossible to procure loans on New York stocks, the first class of security, at a large margin. The banks rigorously drew balances from each other in specie, and adopted a general system of curtailment, that exceedingly oppressed the market; causing prices, particularly of stocks, to fall rapidly. When the loans of banks are very large, the pressure produced by curtailment is very much greater than when the amount outstanding is less—as thus, in November, 1843, the loans were 25 per cent less than on the same day, 1847. If these notes were all active, ninety-day paper, the amount due weekly, in November, 1843, was \$5,000,000, and this year \$6,700,000. If the banks loan but one-half the amount that matures, the amount due them will be near \$3,500,000, weekly, beyond what they furnish the means of meeting. The high rates of interest paid under such circumstances, induce individual depositors to draw their funds, (the amount of which, as seen in the above table, is large,) to supply the market. Large quantities of stock are also sold for money to meet payments, the continuance of which soon relieves the market. In the above table, the amount of specie being \$9,107,920, to meet, in round numbers, \$67,000,000, is nearly as one to seven and a half. A loss of \$2,000,000, by shipment, would then involve, to procure the same proportion, a curtailment of \$15,000,000. It is usually the case that the banks curtail in the February quarter, through the general operations of trade; internal communications having ceased, the imports lessened, and produce going forward freely. From November, 1845, to February, 1846, the reduction in loans was \$3,000,000. Last year, when the loans in November were over \$8,000,000 less than this year, the reduction was \$2,000,000. This year, under the action of the causes indicated, the curtailment will be far more rapid and extensive. The continuance of the panic which marked financial affairs on the departure of the steamer of the 16th November, must depend upon the nature of the news from abroad. Should affairs take a favorable turn, so that bills will again be regarded with confidence, an immediate ease of the money-market, and a return of prosperity, would result; because the practical effect would be to make available a capital which cannot be less than \$10,000,000, temporarily annihilated by the difficulty of negotiating bills upon it. The influence of the pressure upon government stocks is seen as follows:—

PRICES OF UNITED STATES GOVERNMENT STOCKS.

	1867.	1862.	1856.	1853.	1850.	Mexican.	TREAS.	NOTES.
			6's.	5's.	5's.	6's.	5 1/2-5ths.	
December 1.....	106	101	96 $\frac{1}{2}$	....	....	....	....
" 15.....	100 $\frac{1}{2}$	99 $\frac{1}{2}$	93	....	....	....	....
January 1.....	101	98 $\frac{1}{2}$	91 $\frac{1}{2}$	93	....	....	....
" 15.....	100 $\frac{1}{2}$	97 $\frac{1}{2}$	90	93	....	....	....
February 1.....	100	101	95	....	....	....	....
" 15.....	103	101 $\frac{1}{2}$	94 $\frac{1}{2}$	92	101	100 $\frac{1}{2}$	....
March 1.....	103	101 $\frac{1}{2}$	94	92	102	101 $\frac{1}{2}$	....
" 15.....	102 $\frac{1}{2}$	101 $\frac{1}{2}$	94 $\frac{1}{2}$	....	102	101 $\frac{1}{2}$	....
April 1.....	103 $\frac{1}{2}$	101 $\frac{1}{2}$	....	....	101 $\frac{1}{2}$	101 $\frac{1}{2}$	....
" 15.....	104 $\frac{1}{2}$	104	104 $\frac{1}{2}$	95	93 $\frac{1}{2}$	103	102 $\frac{1}{2}$	....

PRICES OF UNITED STATES GOVERNMENT STOCKS—CONTINUED.

May	1.....	106	105	105	95½	....	104	103
"	15.....	107½	106	106	95½	92	105	104½
June	1.....	104½	103	....	94	93	105½	105½
"	15.....	107½	106½	105½	96	97½	107	106
July	1.....	107½	107	106	96	96½	107½	106½
"	15.....	106½	106½	105½	99	99	106	106
August	1.....	106½	106	105½	97½	97	106	105
"	15.....	104½	104	102	96	96	103½	103
September	1.....	105	104½	104	98	95	104	103½
"	15.....	104½	104½	103	98	96	103½	103½
October	1.....	105½	105½	104½	97	95	104½	103½
"	15.....	103½	102½	103	96	95	101½	101
November 20.....		101	100	100	92	91	99½	99

These stocks, selling at or about par, leave 2½ per cent interest accumulated. Hence, the price is actually at a discount. The Treasury notes, on the other hand, are sold for the face; the interest due on it being paid in addition. The moment these fell to par, they became available at the custom-house for duties, and checked the demand for specie for that purpose.

Cotton has been, perhaps, the most rapidly depreciated in price, considering the magnitude of the interest, of any article, for a length of time. The decline has been as follows, for Mobile and New Orleans quotations:—

QUOTATIONS OF COTTON IN NEW YORK.

	Inferior.	Ordinary a good ordinary.	Middling a good middling.	Middling fair a fair.	Fully fair a good fair.
September 1...	10½ a 10½	11 a 11½	11½ a 12½	12 a 12½	13 a 14
" 4...	10 a 10½	10½ a 11	11½ a 11½	12 a 12½	12½ a 13½
" 8...	10 a 10½	10½ a 11	11½ a 11½	12 a 12½	12½ a 13½
" 11...	10 a 10½	10½ a 11½	11½ a 12	12½ a 12½	13 a 14
" 15...	None.	11 a 11½	11½ a 12½	12½ a 13½	13½ a 14½
" 18...	"	11 a 11½	11½ a 12½	12½ a 13½	13½ a 14½
" 22...	10½ a 10½	10½ a 11½	11½ a 12½	12½ a 12½	13 a 14
" 25...	10½ a 10½	10½ a 11½	11½ a 12	12½ a 12½	13 a 13½
" 29...	10 a 10½	10½ a 11	11½ a 11½	12 a 12½	12½ a 13½
October 2...	10 a 10½	10½ a 11½	11½ a 11½	12 a 12½	12½ a 13½
" 6...	9½ a 10	10½ a 10½	10½ a 11½	11½ a 12½	12½ a 13
" 9...	9 a 9½	9½ a 10½	10½ a 10½	11½ a 11½	12 a 12½
" 13...	9 a 9½	9½ a 10½	10½ a 10½	11 a 11½	11½ a 12
" 16...	9 a 9½	9½ a 10	10½ a 10½	11 a 11½	11½ a 12
" 23...	None.	8½ a 8½	8½ a 9½	9½ a 10	10½ a 10½
" 27...	"	8 a 8½	8½ a 9½	9½ a 9½	10 a 10½
" 30...	"	8 a 8½	8½ a 9½	9½ a 9½	10 a 10½
November 3...	"	7½ a 8	8½ a 8½	9 a 9½	9½ a 10½
" 6...	"	7½ a 8	8½ a 8½	9 a 9½	9½ a 10½
" 10...	"	7½ a 7½	7½ a 8½	8½ a 9½	9½ a 9½
" 16...	6 a 6½	7 a 7½	7½ a 8½	8½ a 9½	9½ a 9½
" 23...	5½ a 6	6½ a 6½	7½ a 7½	7½ a 8½	8½ a 9

The fall here indicated is, on fair cottons, about 5 cents in the sixty days ending with November 20—a fall of 40 per cent; making, on the receipts at all the ports, a heavy decline in value. The receipts, stocks, and exports, have been, as compared with last year, as follows:—

UNITED STATES COTTON CROP FROM SEPTEMBER TO NOVEMBER 10.

Years.	EXPORT TO—						Stocks. Bales.
	Receipts. Bales.	Great Britain. Bales.	France. Bales.	N. of Europe. Bales.	Oth. parts. Bales.	Total. Bales.	
1846.....	168,644	24,824	17,855	5,595	8,014	56,288	145,210
1847.....	185,504	73,006	39,383	14,734	4,241	131,364	185,599
Increase....	16,860	48,182	21,528	9,139	....	75,076	40,389
Decrease....	....	....	....	....	3,773	....	....

The average fall of \$16 per bale gives a decline of \$2,968,064 in the money-value of this article. At present prices, the value shipped is \$2,402,422, unavailable for want of confidence in the bills drawn against it. The great fall in price has resulted, doubtless, from the money-pressure in Lancashire, where the impossibility of procuring capital against the reckless competition of railroads has induced a very rapid curtailment in manufacturing operations. The following table shows the number of factories in operation in Manchester, and the number of hands employed at the date, for four successive weekly reports:—

	MILLS—				HANDS—			
	On full time.	On short time.	Stop'd.		On full time.	On short time.	Out of work.	Total.
September 28.....	130	23	22	175	25,006	8,337	7,664	40,907
October 5.....	125	26	24	175	24,317	7,956	8,736	41,009
" 12.....	112	33	30	175	23,200	8,701	9,108	41,009
" 19.....	97	48	30	165	18,516	12,198	10,314	41,028

This indicates a very rapid progress of distress, and curtailment in the manufacture of the raw material, the consumption of which has been diminished one-third, simultaneously with receipts which indicate that the crop will be fully an average one. These circumstances promise a very low range for cotton for the year, and hold out but little prospect of a reaction in favor of the planter. In consequence of the general prosperity of the country, however, and the large means for the consumption of goods, the fall of cotton, simultaneous with the restricted operation of the Lancashire manufactories, is highly favorable for our domestic manufacture; and probably the coming year will be one which, through active sales of goods, and low prices of the raw material, will result in profits much larger than usual.

The progress of the revulsion in England has still added new and long lists to the number of bankrupt firms—the leading names of which, down to November 4, we insert here for convenience of future reference; and they are as follows:—

FAILURES IN GREAT BRITAIN FROM AUGUST 1 TO OCTOBER 19.

Alexander, L., & Co., merchants, London.	Denny, D. & A., corn and prov. merchants, Glasgow.
Alison, Cumberland, & Co., merchants, London and Valparaiso.	Dickson, A., & Co., corn merchants, Belfast.
Andrew, E. & J., calico printers, Manchester.	Douglas, C., & Co., corn merchants, London.
Armstrong, John Alfred, cotton merch't, Manchester.	Eude, Bourdell, banker, Honfleur.
Atherton, W., merchant, Liverpool.	Excels and Co., corn merchants, Venice.
Barclay, Brothers, & Co., merchants, London.	Fraser and Co., merchants, Antwerp.
Barnes, F., & Co., hardwaremen, London, Birmingham, and Sheffield.	Fraser, Neilson, and Co., merchants, London.
Barthlingth, J. H., merchant, St. Petersburgh.	Fry, Griffiths, and Co., indigo and col. brok'r, London.
Bensusan & Co., merchants, London.	Geisler, Weber, and Co., merchants, Manchester.
Bernouilli, E., merchant, London.	Gemmelli Brothers, East India merchants, Glasgow.
Booker, T., Sons, & Co., corn merchants, London.	Giles, Son, and Co., corn merchants, London.
Bradley & Parker, stock brokers, Manchester.	Glover, F. H., foreign merchant, Manchester.
Brown, Todd, & Co., provision merch'ts, Liverpool.	Gower, A. A., Nephews, & Co., gen. mer., London.
Boyd & Thomas, merchants, London.	Gray and Roxburgh, merchants, Greenock.
Broadhurst, E. M., corn merchant, Manchester.	Gregg, H. and G., corn merchants, Liverpool.
Burnell & Co., coal agents, London.	Guest, James, cotton spinner, Manchester.
Burts, Watson, & Co., mer., Manchester and Leeds.	Hadlow, S. J., Stock Exchange, London.
Castellain, Sons, & Co., merchants, London.	Hastie and Hutchinson, corn factors, London.
Clagett, W. T., American merchant, London.	Higgins, V., and Sons, iron merchants, Liverpool.
Cockburn & Co., army agents and bankers, London.	Howell, James, and Co., warehousemen, London.
Cockburn & Co., wine merch'ts, London and Oporto.	James, Nephew, and Co., merchants, Manchester.
Cockerell & Co., merchants, London.	King and Melvil, corn factors, London.
Cooper, E. M., & Co., co.o. merchants, Manchester.	Kirkpatrick, J. and C., provision brokers, Liverpool.
Cornthwaite, P., wholesale grocer, Liverpool.	Knapp, Henry, banker, Abingdon.
Coventry & Shepherd, corn factors, London.	Lake, Calrow, and Co., E. I. merchants, Liverpool.
Cropp & Marchand, merchants, Hamburg.	Langdale, S., and Co., merchants, Stockton.
Custo, A. & A., general merchants, Genoa.	Legrelle and Co., bankers, Brussels.
Dalglish & Co., merchants, Liverpool and Glasgow.	Lylly, Brothers, and Co., E. I. merchants, London.
De Jersey & Co., merchants, Manchester.	Lyon and Fynney, corn merchants, Liverpool.
Dennison & Co., provision dealers, Limerick.	M'Donald, A., and Co., saltpetre manuf'ts, London.

* Since resumed payment.

- Mitchell, A., and Co., American merch'ts, Liverpool.
 Mocatta and Son, merchants, Liverpool.
 Mocatta, S. and J. L., W. I. merchants, Liverpool.
 Molloy and Mervin, cattle dealers, Dublin.
 Morley, J. and W., warehousemen, London.
 Murphy, Thomas, provision merchant, Waterford.
 Murray, T. and H., W. and E. I. merch'ts, Liverpool.
 Nash, Wm., Manchester warehouseman, London.
 Oakley, R. R., Stock Exchange, London.
 Ozell and Co., steam-mill proprietors, Venice.
 Oldham Joint Stock Banking Company, Oldham.
 O'Neal, J. and F., and Co., corn merch'ts, Liverpool.
 Parry, E. P., wholesale grocer, Liverpool.
 Pearce, W., and Co., merchants, Liverpool.
 Pehamoller and Tollens, merchants, Hamburg.
 Perkins, Schlusser, and Mullens, merchants, London.
 Perrin and Co., merchants, Liverpool.
 Perston, Matthew, general merchant, Glasgow.
 Phillips, L., and Sons, E. India merchants, London.
 Platt, Hammill, and Co., E. I. merchants, Liverpool.
 Potter, E., and Co., ag'ts and yarn deal., Manchester.
 Reid, Irving, and Co., merchants, London.
 Reid, Robinson, and Co., merchants, Glasgow.
 Render and Milner, ag'ts and yarn deal., Manchester.
 Rickards, Little, and Co., merchants, London.
 Ridehalgh and Co., worsted spinners, Halifax.
 Robinson, Edward, merchant, London.
 Robinson, W. R., and Co., merchants, London.
 Rosing and Co., merchants, Bremen.
- Rougemont Brothers, merchants, London.
 Roux, A., merchant, Paris.
 Rowett, W., and Co., merchants, Liverpool.
 Royal Bank, Liverpool.
 Samuel and Phillips, East India agents, London.
 Sanders, Wetherell, and Co., Stockton-on-Tees.
 Sanderson and Co., bill brokers, London.
 Shewell, J., and Son, money dealers, London.
 Soares, M. J., Portuguese merchant, London.
 Southam, Messrs., cot. spinners, Ashton-under-Lyne.
 Steele, M., and Son, soap manufacturers, Liverpool.
 Steel, W., and Co., merchants, Liverpool.
 Stocks and Tait, bleachers, Manchester.
 Symott, M. S., shipowner, Liverpool.
 Tebbutt, T. R., soapboiler, Manchester.
 Thomas, J., Son, and Lefèvre, merchants, London.
 Tomlinson, W. and T., corn merchants, Liverpool.
 Usborne, T., and Co., corn factors, London.
 Vanzeller, F. I., Portuguese merchant, London.
 Watson, Brothers, and Co., merchants, Liverpool.
 Watson, Eller, and Co., merchants, Manchester.
 Watson, M'Knight, and Co., merchants, Edinburgh.
 Westlake and Co., corn merchants, Southampton.
 White and Co., timber and corn merch., Waterford.
 Wilson and Ebor, spinners, Manchester.
 Wilson, Nash, and Co., merchants, Liverpool.
 Wingate, A. and J., calico printers, Glasgow.
 Wittstein & Co., spinners, Burman, near Elberfield.
 Woodley, W. and J., corn merchants, London.

FROM OCTOBER 19

TO NOVEMBER 4.

- Adams, Warren, and Co., bankers, Shrewsbury.
 Allesci, E., and Co., corn merchants, Genoa.
 Barker, silk manufacturer, Manchester.
 Barton, Islam, and Higginson, merchants, Liverpool.
 Barton, John, and Co., merchants, ——.
 Berey, Young, and Co., cotton brokers, Liverpool.
 Bertrand, Napoleon, Courtray.
 Borthwick, H., late M. P., London.
 Brodie and Co., bankers, Salisbury.
 Brodie and King, bankers, Shaftesbury.
 Brooke and Wilson, shipowners, Liverpool.
 Calcagno, Handen G., money changer, Genoa.
 Coates, and Co., American merchants, London.
 Coates, Hillard, and Co., agents, Manchester.
 Cockburn, Greig, and Co., wine merchants, Lisbon.
 Cowans, Smith, and Co., commission ag'ts, Glasgow.
 Cruikshanks, J. P., W. I. merchant, London.
 Curts, S. S., hide merchant, London.
 Farbridge, R. and J. E. I. merchants, Manchester.
 Gardner, Robert, merchant and spinner, Manchester.
 Galt and Co., Medlock Bridge Mills, Manchester.
 Gillows and Co., spinners, Preston.
 Grazebrook and Son, iron merchants, Liverpool.
 Howard, J. P., and Co., colonial brokers, London.
 Jacobi, L. W. A., merchant, Hamburg.
 Jones, W., and Co., wholesale tea dealers, Liverpool.
 Kilgour and Leith, West India merchants, Glasgow.
 Lambert, W., merchant, ——.
- Larib and Co., merchants, Leghorn.
 Liverpool Banking Company, Liverpool.
 Livingston and Co., East India merchants, Liverpool.
 Logan, James, Canadian trade, Liverpool.
 Martin and Hartwright, yarn merchants, Manchester.
 McTear, Hadfield, and Co., ship brokers, Liverpool.
 Molynex and Hubert, tea brokers, Liverpool.
 Morpugo and Tedeschi, merchants, Leghorn.
 Newcastle Union Joint-Stock Bank, Newcastle.
 North and South Wales Bank,* Liverpool.
 Pearson, Wilson, and Co., foreign merch'ts, Glasgow.
 Pegragutiers, D., merchant, Leghorn.
 Riva, C., and Co., merchants, St. Petersburg.
 Roget and Brierly, spinners and manuf., Blackburn.
 Salisbury Bank.
 Scholes, Tetlow, and Co., bankers, Manchester.
 Scott, Bell, and Co., East India merchants, London.
 Shrewsbury and Market Drayton Bank.
 Sutherland, C., and Co., colonial brokers, London.
 Swanson and Birchwood, manuf'n, Manchester.
 Taylor, H., soapboiler, Liverpool.
 Valentini, J. L., merchant, Leghorn.
 Van Zeller, J., and Sons, merchants, Lisbon.
 Ventura, merchant, Venice.
 Vermehren, M., merchant, St. Petersburg.
 Verrein and A. Gielis, manufacturers, Courtray.
 Warden and Co., merchants, Liverpool.

Here are one hundred and seventy-six of the leading firms of England prostrated in three months! It is observable that, from the 19th of October, the failures took place to a greater extent in Lancashire, the provinces, and in European cities, among correspondents of English houses, than in London. In fact, the failures in that city, after the middle of October, were comparatively unimportant, notwithstanding the increased pressure for money; and in the face of which breadstuffs, particularly flour, advanced 3s. per barrel. The severity of the pressure induced the government to permit the bank so far to infringe the bank charter act of 1844 as to make advances from the specie in the issue department; and on the 25th October the following notice was issued:—

"Resolved, That the minimum rate of discount on bills not having more than ninety-five days to run, be 8 per cent; that advances be made on bills of exchange,

* Has numerous branches throughout Wales.

on stock exchequer, and other approved securities, in sums of not less than £2,000, and for periods to be fixed by the governors, at the rate of 8 per cent per annum."

This innovation would require the assent of Parliament, which was to meet November 18. Inasmuch as a great deal of the existing difficulties had been ascribed to the bank charter, this announcement produced a momentary feeling of confidence—trade revived, stocks rose, and prices of produce advanced. It was soon found, however, that the relief was imaginary; and the gloom returned, with apparently greater density. The manufacturing districts were exhibiting symptoms of increasing distress; the number of stoppages daily increasing; and the consumption of cotton so far affected, that, together with accounts of large crops from this side, the price had given way five-eighths of a penny. There appeared to be, as yet, no indications of a turn in the market; and the prospect for the coming winter was sufficiently gloomy. That the famine in Ireland would return, with perhaps greater violence, there was no doubt. The Catholic bishops had notified the Lord Lieutenant on the certainty of its approach, and he had promised the aid of the government. There appeared to be no important relaxation in the operation of the railroads. Although "the calls" announced for November were only £2,000,000, against an average of £3,500,000 for the previous twelve months, any relaxation of the market would renew the demand, and they will probably persevere as long as money can, by any means, be obtained. Indeed, to stop them now, would be productive of evil as great, almost, as to allow them to continue. The numbers of persons employed on them (near 500,000) cannot be discharged, on the approach of winter, with impunity. What means of relief, if any, will be adopted by Parliament, remains to be seen. The only feasible mode of obtaining temporary relief is seemingly that which has been urged, of issuing £1 notes, in order to displace a large amount of sovereigns from circulation, and make them subservient to the wants of external commerce. That temporary ease would be afforded by this means, there is no doubt; but, should the same causes which have produced the pressure continue to operate, in excess of the means so supplied, the distress would only be enhanced by the movement. Thirty millions of small creditors would have been added to those entitled to draw gold from the bank, and the stability of the system of credits greatly undermined. In France, this operation has been commenced. In March last, it was estimated by Mr. Fould, a banker, and member of the Deputies, that the coin of France in circulation was 1,605,000,000 francs, or \$300,937,000; and a law was passed authorizing the bank to issue notes at 200 francs, or \$40—the lowest, hitherto, having been 500 francs. These notes were issued, at the close of October, to the extent of 15,000,000 francs, to be increased to 25,000,000 francs; and so from time to time, as they displace the coin. This operation, it is supposed, will ease the market, and aid in the negotiation of the \$70,000,000 announced by the government. The Bavarian government has also asked for 49,000,000 florins, in aid of railroads. The general effect of the extension of paper money, in either France or England, is seemingly to drive the specie out, and does so, by promoting activity in trade, raising prices, and producing buoyancy in the produce-markets. In the present critical state of our exchange-markets, such a movement in England, by easing money matters, and giving stability to bills running on that country, would at once restore the tone of affairs here.

COMMERCIAL STATISTICS.

SUMMARY VIEW OF THE COMMERCE OF FRANCE IN 1846.

THE "Tableau General du Commerce de la France," is published annually under the direction of the French Administration of Commerce, generally in the month of October or November. This document we usually receive from our correspondent in Paris soon after its appearance. That for 1846, now due, (November, 1847,) has not reached us, and, in its absence, we proceed to lay before the readers of the Merchants' Magazine some statements in addition to the table published in this Magazine for August, 1847. For a general review of the commerce of France with its colonies, and with foreign powers, during the year 1845, translated and made up from the official document referred to, our readers are referred to the number for June, 1847. The statement which we give below is derived from the "Moniteur," an authoritative French journal:—

The imports into France during 1846 amounted to 1 milliard 257 millions of francs, and the exports to 1 milliard 180 millions.

By comparing this statement with previous returns, we find that during the five years, from the year 1832 to the year 1836 inclusive, the exports of France exceeded the imports by 239,000,000 francs. In the subsequent five years the imports exceeded the exports by 71 millions; and in the five years following, namely, from 1842 to 1846 inclusive, the imports exceeded the exports by 573 millions.

The next observation to be made is, that of the 2 milliards 437 millions worth of produce exchanged between France and foreign countries, 72 per cent, or 1 milliard 755 millions, were transported by sea. Of these, 828 millions were conveyed by French ships, and 926 millions by foreign vessels.

COUNTRIES.	Imported into France. Francs.	Exp'd from France. Francs.	COUNTRIES.	Imported into France. Francs.	Exp'd from France. Francs.
Great Britain..	79,000,000	113,000,000	Martinique.....	.....	22,000,000
United States.	111,000,000	100,000,000	Turkey.....	38,000,000	.....
Sardinia.....	107,000,000	49,000,000	Spain.....	36,000,000	73,000,000
Belgium	101,000,000	48,000,000	Switzerland	29,000,000	47,000,000
Russia	52,000,000	.....	Algeria.....	.....	94,000,000
German Union	47,000,000	62,000,000			

Upon analyzing the foregoing, we find that the imports form the following estimated amounts:—

Cotton, raw.....francs	114,000,000	Sugar.....francs	49,000,000
Corn.....	90,000,000	Wool.....	36,000,000
Silk, raw.....	77,000,000	Coal	29,000,000
Timber	53,000,000		

And the exports the following:—

Silks, figured.....francs	146,000,000	Toys.....francs	28,000,000
Cotton cloth.....	140,000,000	Hides, wrought.....	27,000,000
Woollen cloth.....	100,000,000	Linen and hemp cloth.....	28,000,000
Wines.....	46,000,000	China and glass.....	21,000,000

Comparing the French imports and exports during the year 1846 with those of 1845, we find the importation of corn to have increased by 54 per cent; cast metal, 55 per cent; linen cloth, 53 per cent; rice, 40 per cent; machinery, 42 per cent; foreign sugar, 35 per cent.

On the other hand, there appears a diminution in the importation of seeds for crushing of 40 per cent; linen and hempen thread, 38 per cent; raw wool, 26 per cent; copper, 20 per cent; and French colonial sugar, 13 per cent.

Among the exports from France, cotton and woollen thread have increased by 17 per cent; wrought hides, 12 per cent; cotton cloth, 9 per cent; toys, 8 per cent; silk stuffs, 4 per cent; woollen cloth, 4 per cent. There has been a diminution of 39 per cent on refined sugar exported, of 51 per cent on corn, of 23 per cent on articles of Paris manufacture, of 16 per cent on wines, of 41 per cent on fruit for seed, and of 14 per cent on tanned hides and Morocco leather.

COMMERCE OF THE UNITED STATES WITH CHINA.

The annexed statements of the commerce of China with the United States, for the year ending June 30th, 1847, are derived from the "European Times":—

IMPORTS INTO CHINA FROM THE UNITED STATES, FROM JULY 1, 1846, TO JUNE 30, 1847.

Blue drills.....	pcs 3,300	Yarn.....piculs 2,943	Flour.....barrels 800
Brown drills.....	460,830	Lead.....4,855	Bread.....pounds 18,903
Brown jeans.....	46,740	Copper.....79	Beef.....barrels 229
Brown sheetings....	33,218	Speiter.....555	Pork.....70
White drills.....	4,697	Cochineal.....ceroons 114	Furs.....10,527
Brown twills.....	286	Ginseng.....piculs 2,796	Candles.....boxes 260
Shirtings.....	251	Opium.....chests 17	Specie.....dollars 33,433

EXPORTS OF TEA FROM CHINA TO THE U. STATES, FOR THE SEASONS OF 1846-7 AND 1845-6.

	1846-7.	1845-6.		1846-7.	1845-6.
	Pounds.	Pounds.		Pounds.	Pounds.
Congou and Sou-chong.....	3,146,126	3,064,160	Twankay and Hy-son Skin.....	2,770,705	2,588,776
Pouchong.....	372,736	946,378	Young Hyson.....	8,572,181	8,633,731
Oolong.....	685,695	220,294	Imperial.....	983,836	854,043
Pekoe.....	120,398	35,435	Gunpowder.....	1,307,017	1,253,709
Orange Pekoe.....	173,350		Total*.....	18,886,287	18,502,092
Hyson.....	754,243	905,566			

TOTAL EXPORTS OF TEA FROM CANTON, FOR THE SEASONS OF 1846-7 AND 1845-6, TO THE FOLLOWING COUNTRIES:—

	1846-7.	1845-6.		1846-7.	1845-6.
	Pounds.	Pounds.		Pounds.	Pounds.
To Great Britain...	53,448,339	57,622,803	To Hanseatic Towns.	1,071,560	1,383,252
United States..	18,886,287	18,502,092	France.....	226,790	364,580
Holland	3,054,540	3,054,130			

EXPORTS FROM CHINA, TO THE UNITED STATES, OF SILKS AND SUNDRIES, FOR THE SEASONS OF 1846-7 AND 1845-6.

	1846-7.	1845-6.		1846-7.	1845-6.
	Pieces.	Pieces.		Boxes.	Boxes.
Pongees.....	54,487	54,604	Gauze.....	boxes 56	.....
Handkerchiefs.....	24,381	50,975	Cassia	piculs 6,335	7,867
Sarsnets.....	6,505	6,167	Matting.....	rolls 16,103	23,538
Senshaws.....	5,232	4,085	Gamboge.....	boxes 1	159
Camlets.....	.....	20	Rhubarb.....	.....	763 1,135
Lustrings.....	357	.....	Vermilion .....	.....	173 176
Satins.....	1,262	1,982	Sweetmeats.....	.....	1,923 4,637
Damasks.....	622	321	Pearl Buttons.....	.....	70 204
Levantines.....	1,322	1,099	Chinaware.....	.....	105 644
Capes.....	1,500	199	Fire Crackers.....	.....	18,685 20,510
Shawls and Scarfs.....	54,627	143,277	Oil of Cassia.....	.....	244 154
Sewing Silk.....	.....	630	Oil of Anis.....	.....	144 174
Raw Silk.....	boxes 316	426	Camphor.....	.....	750 1,346
Nankeens.....	28	.....	Fans.....	.....	1,189 1,168
Grass Cloth.....	139	692	Lacquered Ware.....	.....	157 377

COMMERCE OF THE WESTERN LAKES.

The unprecedented increase of the commerce of the upper lakes, during the past twenty years, caused by the increase of population and opening of new avenues of communication with the fertile West, has exceeded the most sanguine estimates, and points, with unerring certainty, to its continued progress.

The construction of the important canal around the Sault de St. Marie, a channel of one mile, through which must flow the vast mineral wealth of the Lake Superior region, will give additional value to the already great and increasing northwestern trade. The growth of the West is steadily and rapidly onward; and with this growth the commerce

* Including the Mary Ellen, lost in Gaspar Straits, cargo 716,110 pounds.

of the lakes, and the travel between the East and the West, must keep pace. The following statements of the increase of the upper lake commerce can be relied upon, as they are made up at the custom-houses, at the several ports of entry, from undoubted authority.

The first sail craft upon Lake Erie was the sloop Detroit, of seventy tons, in 1796; and up to the declaration of war, in 1812, the total number of vessels of all descriptions afloat upon Lake Erie was twelve. The first year after the war (1816) the aggregate tonnage of sail craft upon the upper lakes was two thousand one hundred and eighty, embracing about forty sail, (two small schooners only being over one hundred tons burden.) The number of arrivals and departures at the port of Buffalo that season amounted to only eighty. In 1818, when the first steamer was built, they reached one hundred. In 1846, the number of arrivals and departures at the same port was seven thousand seven hundred and fourteen, forming an aggregate of one million eight hundred and twenty-five thousand nine hundred and fourteen tons.

On the first of July, 1847, there were the following number and description of vessels owned and running on the lakes above Niagara Falls, as near as could be ascertained by the most careful and extensive research:—

	Aggregate tons,	Average tons,
81 steamers,.....	35,835	442
31 propellers,.....	" 10,295	" 332
63 brigs,.....	" 14,589	" 231
315 schooners,.....	" 47,798	" 152
490 total,.....	" 108,457	" 221

There was an increase of tonnage of about thirty-five per cent in the last eighteen months. The total cost of the above vessels is estimated at six millions two hundred and forty thousand dollars, or one million five hundred and sixty thousand pounds; of which amount over two millions of dollars has been expended since January, 1846, in the construction of new vessels, and the repairing and enlarging old ones.

The following comparative statements of the exports from the upper lakes will mark the rapid change that has taken place within a few years in the West:—

Articles.	1845.	1846.	1846.
Flour,.....bbls.	86,233	717,466	1,280,897
Provisions,....."	6,562	68,100	99,398
Wheat,.....bush.	98,071	1,354,990	3,611,224
Corn,....."	14,579	33,069	1,179,689

In addition to the above, the following articles passed through the Welland Canal to Lake Ontario, from the West, and from the Canadian ports on Lake Erie:—

Articles.	1845.	1846.	To July 1, 1847.
Flour,.....bbls.	207,555	273,284	211,897
Provisions,....."	13,962	34,211	16,608
Wheat,.....bush.	1,891,627	3,172,969	1,658,093
Corn,....."	22,092	461,933	445,100
Bands,.....feet	11,584,096	14,855,065	13,848,921

PART OF CHICAGO, ILLINOIS.

1845,.....	Wheat exported, 956,860 bushels.	Flour exported, 13,750 barrels.
1846,.....	" 1,459,599 "	" 23,045 "
Increase,.....	" 502,739 "	" 9,295 "

The flour already shipped up to the 31st of July, 1847, exceeds that for the whole year last season.

PART OF MILWAUKIE, WISCONSIN.

1845,.....	Wheat exported, 95,500 bushels.	Flour exported, 7,500 barrels.
1846,.....	" 213,448 "	" 15,756 "

The flourishing towns of Racine, Southport, and Little Fort, on the western shore of Lake Michigan, between Milwaukee and Chicago, will add their share towards swelling this immense amount of exports, and will compare favorably with Milwaukee, lying, as they do, directly in front of the best wheat-growing country in Wisconsin.

The arrivals and departures at this port, Milwaukee, for 1846, were—

	Arrived.	Departed.	Total.		Arrived.	Departed.	Total.
Steamers,.....	352	348	700	Schooners,.....	837	835	1,672
Propellers,.....	111	109	220	Total,.....	1,395	1,386	2,781
Brigs,.....	95	94	189				

To show how rapidly the West is being settled and improved, we have only to note the change that has taken place in Wisconsin alone in a few years:-

In 1830 the population was.....	3,245	In 1842 the population was.....	46,678
1836 " " 	11,686	1846 " " 	245,228
1840 " " 	30,945	1847, in July, estimated at.....	360,000

Up to 1840, Wisconsin imported their supplies of every kind, including provisions. In 1846 they fed themselves, supplied an army of over one hundred thousand new emigrants, and of their surplus remaining they exported through the lakes between three and four millions of dollars in value, mostly in agricultural products.

The lead and shot made in this State in 1846, and which principally sought a market via the Mississippi, is known to have been very large.

COMMERCE OF AUSTRIA.

The following statement of the commerce of Austria, for a series of years, is derived from official documents:-

VALUE OF IMPORTS AND EXPORTS.

The estimated value of the Austrian imports, (for home consumption,) and the export of its produce, has increased as follows:-

Year.	TRAFFIC BY LAND AND SEA.		
	Import for Consumption. Value.	Export of own Products. Value.	Total.
1831,.....	£6,880,945	£7,949,083	£14,830,028
1832,.....	7,902,349	8,922,148	16,824,497
1833,.....	8,146,572	9,237,018	17,383,590
1834,.....	8,146,165	8,603,931	16,950,096
1835,.....	9,144,532	8,890,322	18,034,854
1836,.....	9,855,359	9,755,433	19,610,792
1837,.....	9,734,639	9,200,950	18,935,589
1838,.....	10,305,770	10,548,267	20,854,037
1839,.....	10,313,013	10,711,573	21,024,586
1840,.....	11,118,688	10,850,870	21,969,558
1841,.....	10,588,930	11,232,034	20,820,964
1842,.....	11,065,775	10,855,907	21,921,652
1843,.....	11,142,085	10,411,395	21,553,480
1844,.....	11,448,500	10,961,800	22,410,900

This table, which does not include the transit trade, shows an increase in the total value of Austrian commerce, from £14,830,028 in the year 1831, to £22,410,900 in the year 1844, or 55 per cent in fourteen years; about 4 per cent per annum. In point of fact, the value of the exports amounts to several millions more; the valuation of silks, &c., being made at considerably more than 50 per cent below their real worth.

With respect to the Austrian traffic, the principal augmentation has been by sea, increasing from £4,763,675 in 1841, to £6,153,761 in 1844, thereby showing an improvement of nearly 30 per cent in four years, or $\frac{7}{4}$ per cent in one year. The great difference between the maritime import and export is fully elucidated by the fact, that the Austrians ship only heavy articles of an inferior value, while they receive, in return, spices, and colonial and manufactured goods of a more costly description.

During the year 1841, 25,146 vessels, of 847,000 tons burden, entered the ports of Austria. In the year 1844, 29,094 vessels, of 1,005,000 tons burden, arrived; proving an increase of about 18 per cent in the number of vessels, and 15 per cent on the amount of tonnage. In the year 1844, the whole traffic of foreign and sea-going vessels in the Austrian ports amounted to 21,000 arrivals of 1,025,027 tons burden, £13,336,900 in value, the total import, export, and transit included. This statement shows an average burden of 48½ tons of the vessels arrived in the Austrian ports.

The value of the merchandise exchanged by this traffic amounted to £13 6s. 8d. per ton. The importance of the Austrian naval traffic can only be appreciated by referring

to the extent of her sea coast, being not more than sixty geographical miles, each of which would be interested to the extent of 17,084 tons burden, and £222,845 value.

The duties on goods imported into Austria amounted to £1,681,500, about 9½ per cent on £17,958,500.

Of the sum of £1,681,500, the greater part, namely, £1,560,000, was collected on the goods entered for consumption, and was contributed by the following articles, in the following proportions:—

Products of colonial goods,.....	50 per cent of value.
" agriculture,.....	12 " "
" yarns,.....	7½ " "
Stuffs for manufactured and semi-manufactured goods,.....	3 " "
Manufactured commodities and works of art,.....	14 " "

The duties, in proportion to the population, amount, in Austria, to 10½d. per head; and in England, where twenty-eight millions of inhabitants were taxed to the extent of £23,849,560, the proportion was no less than 17s. per head.

The contraband trade, which, particularly in the cantons of Switzerland and the States of the German Union, is carried on to such an enormous extent that the result must be taken into consideration in every statement having any regard to accuracy. There are two different kinds of smuggling practised on the Austrian frontier. The first, and almost general mode of avoiding the custom dues, is accomplished by the abuse of the privilege granted to the inhabitants of the boundary districts, to purchase from adjacent territories, without payment of duty, certain small quantities of goods for their own private use. The second plan is the same as that adopted on the frontiers of other countries, with the exception that, in Austria, the custom-house officers are so inadequately remunerated that they cannot afford to be honest, even if they are so inclined. Smuggling into Austria is also encouraged by the regulations of the Germanic confederation, which permit the contrabandist to take goods out of bond, and, under the supervision of an officer, to convey them to any part of the adjoining border, or to bring them back again if he think fit so to do; that is to say, if he finds himself unable to cross the frontier without performing the unpleasant operation of paying duty. In 1844, the value of these smuggled goods, which consisted chiefly of coffee, spices, sugars, spirits, champagne wine, English cotton goods, French silks, cambrics, cohreas, embroideries, Lyons shawls, Paris bijouterie, &c., was estimated at £1,500,000, which estimate is certainly rather below than above the mark. So extensive is this trade, and its existence so generally recognized, that there are what we may term insurance companies, who, for a consideration of from 5 to 30 per cent, according to the risk, will undertake to deliver the goods at Prague, Vienna, or elsewhere, or to forfeit the value in default thereof.

EXPORT OF BREADSTUFFS IN 1847.

The effects of the late famine in Great Britain, and the scarcity in other parts of Europe, on our export trade, are thus illustrated in a report recently made by the Hon. Edmund Burke, Commissioner of the Patent Office, at Washington, in which he says:—

It appears, from the returns of the commercial year ending August 31st, 1847, that the following quantities of flour, wheat, and other grains were, during that year, exported from the United States:—

	1847.	1846.		1847.	1846.
Flour.....bbls.	3,150,689	2,899,476	Rye.....bush.	88,261	
Corn meal.....	847,980	298,790	Oats.....	436,881	} 1,000,000
Wheat.....bush.	4,015,134	1,613,795	Barley.....	289,613	
Indian corn.....	17,298,744	1,826,068			

Reducing the flour to bushels of wheat, allowing five to the barrel, and the corn meal, allowing three to the barrel, and the aggregate number of bushels exported during the year ending August 31, 1847, is..... 43,573,918
Number of bushels exported in 1846, during fiscal year ending June 30th, 16,809,203

Excess of bushels of grain exported in 1847 over exports of 1846, is..... 26,664,715

The value of the whole quantity of breadstuffs and grain exported during the year ending September 1st, 1847, estimated at \$1 20 per bushel, a fair average, is \$52,288,701
Value of exports for the fiscal year ending June 30, 1846, as reported by the Register of the Treasury in the commercial returns of that year, is 16,258,719

Excess in the value of exports of 1847 over the value of exports of 1846, \$36,029,982

Thus it appears that the quantity of wheat, corn, and other kinds of grain, the products of the farmer, exported in 1847, exceed the quantity of the same kinds of grain exported in 1846 by nearly twenty-seven millions of bushels; and the value of the same exports in 1847 exceed the value of those of 1846 by the sum of thirty-six millions of dollars.

PROGRESS OF THE IRON TRADE OF FRANCE.

The "Moniteur" contains the following data relating to the produce and manufacture of iron in France. It exhibits the condition of this branch of French industry at three different periods, from 1825 to 1845:—

The individuals employed in various works amount to at least 100,000 men. The produce in 1845 exceeded 166,000,000 francs. The number of steam-engines was only 109 in 1840; in 1845 it was 207; so that it nearly doubled in five years. The mining returns show that the price of the metrical quintal is only 1 franc 32 centimes; and that, if the duty and carriage be deducted, it would be reduced to 60 centimes. The extraction from the 425 mines open on our soil in 1845, produced a total weight of ore of 2,640,000 tons. That mass of iron ore was converted, by the 432 forges in operation out of 608, into 439,000 tons of cast iron and 342,000 tons of bar iron. To show the great progress made by the iron industry, we give the results of the last twenty years:—

	Cast Iron.	Iron.		Cast Iron.	Iron.
In 1825.....	190,000	144,000	|	In 1845.....	439,000
1835.....	295,000	210,000		342,000	

EXPORTS OF AMERICAN PRODUCE FROM NEW ORLEANS.

The New Orleans Custom-house books furnish the following statement of the exports of American produce for the third quarter of 1847, as compared with the corresponding quarter of 1846. It will be seen that the former shows a large excess over that of the latter (1846):—

EXPORTS OF AMERICAN PRODUCE.

	1846.	1847.
	Third quarter.	Third quarter.
Coastwise.....	\$2,478,080 46	\$3,745,771 37
In foreign vessels to foreign countries.....	778,840 00	911,323 00
In American vessels to foreign countries.....	4,864,360 00	8,297,322 00
Total.....	\$8,121,580 46	\$12,954,416 37

From the above official statement, it appears that the total exports of produce during the third quarter of 1847 amounted to \$12,954,416 37, against \$8,121,580 46 same time in 1846. Increase in 1847, \$4,832,835 91.

EXPORTS OF INDIAN CORN FROM THE UNITED STATES

TO FOREIGN COUNTRIES, AND THE EXPORT PRICES OF THE SAME, FROM 1828 TO 1847, INCLUSIVE.

Years.	Indian corn. Bushels.	Prices p. bush.	Years.	Indian corn. Bushels.	Prices p. bush.
	Cents.			Cents.	
1828.....	704,902	48	1838.....	172,321	81
1829.....	897,656	53	1839.....	162,306	87
1830.....	444,107	50	1840.....	474,279	71
1831.....	571,312	69	1841.....	535,727	59
1832.....	451,230	61	1842.....	600,308	57
1833.....	487,174	69	1843.....	672,608	42
1834.....	303,449	67	1844.....	825,282	49
1835.....	755,781	78	1845.....	840,184	49
1836.....	124,791	83	1846.....	1,126,068	65
1837.....	151,276	97	1847.....	1,500,000	75

THE BRITISH COTTON TRADE.**EXPORT OF COTTON YARN AND MANUFACTURED COTTON GOODS FROM ENGLAND.**

This highly interesting and valuable commercial table, derived from "Burns' Commercial Glance," which gives the exports of cotton yarn and manufactured cotton goods from England, in the first six months of the last nine years, has just been published; and from it we extract the following results:—The amount of cotton yarn exported in the first six months of the present year was 51,462,499 lbs., being a decrease of 12,697,069 lbs. as compared with the same period of 1846, and the smallest quantity exported since 1841. The principal items are—

	1846.	1847.
British North America,.....	492,812	323,382
Belgium,.....	1,837,291	1,107,151
Hanse Towns, &c.,.....	16,147,863	12,855,734
Hanover,.....	1,442,040	715,800
Holland,.....	10,246,312	5,795,324
India,.....	11,341,829	12,327,976
China,.....	2,782,500	3,682,790
Malta and Ionian Isles,.....	805,651	217,719
Naples and Sicily,.....	4,313,611	3,117,887
Prussia,	204,577	166,174
Portugal, Madeira, &c.,.....	573,616	178,780
Russia,.....	3,793,150	2,844,131
Sweden and Norway,.....	1,203,656	947,182
Sardinia, Tuscany, &c.,.....	2,685,835	1,170,265
Trieste, Austrian Ports, &c.,.....	1,820,512	1,468,502
Turkey and Levant,.....	3,776,335	3,728,338

Of cotton thread there has been exported, in the first six months of this year, 1,238,203 lbs., being an increase of 68,000 lbs. on 1846; of cambrics and muslins, 2,137,260 yards, being an increase of 106,405 yards. Of plain calicoes, there have been exported 277,523,135 yards, being a decrease of 14,397,904 yards. The principal items of decrease in plain calicoes are as follows:—

	1846.	1847.
British West Indies,.....yds.	7,102,026	5,434,189
France,.....	550,986	205,702
Gibraltar,.....	4,918,757	2,859,941
Hanse Towns, &c.,.....	8,008,627	5,706,550
Holland,.....	9,079,034	6,300,516
India,.....	85,200,555	73,799,313
China,.....	42,659,601	37,000,741
Malta and Ionian Isles,.....	4,413,503	1,157,602
Naples and Sicily,.....	4,729,762	2,421,905
Portugal, Madeira, &c.,.....	15,160,720	5,125,839
Sardinia, Tuscany, &c.,.....	11,772,177	3,832,893
Trieste, Austrian Ports, &c.,.....	6,207,524	2,381,310
 Total,.....	 199,803,272	 146,226,501

There has, also, as will be seen on reference to the "Glance," been a decrease in our exports to other countries, so that the falling off would have been very large, indeed, had it not been for the increased exports of plain calicoes to the following, amongst other places:—

	1846.	1847.
Brazils,.....	26,442,975	38,106,889
Buen. Ayres, M. Video, &c.,.....	726,913	4,121,998
Coast of Africa,.....	1,213,303	2,835,479
Chili and Peru,.....	10,142,163	15,569,225
Egypt,	2,144,928	4,252,877
United States of America,.....	5,366,950	22,130,635
 Total,.....	 46,039,432	 87,017,100

JOURNAL OF BANKING, CURRENCY AND FINANCE.

STATEMENT OF THE NEW ORLEANS BANKS.

The following statement of the movement of the specie-paying banks of New Orleans to the 30th of October, 1847, is made up at the Office of the Board of Currency, New Orleans, and is published in the papers of that city over the signatures of Charles Gayarre, Secretary of State, and Joseph Walker, Treasurer of State:—

BANKS.	MOVEMENT OF THE BANKS.					TOTAL MOVEMENT AND DEAD WEIGHT.	
	Cash	Liabilities.	Assets.	Circulation.	Specie.	Liabilities exc. of Capital.	Assets. Dollars.
<i>Specie-paying.</i>							
Bank of Louisiana.....	2,574,045	4,152,981	885,990	1,531,555	3,159,044	88	8,239,266 46
Canal Bank.....	3,283,302	4,529,736	934,950	1,582,010	3,304,775	19	7,505,494 48
City Bank.....	1,800,250	2,569,713	596,710	892,189	2,176,518	98	4,247,218 98
Louisiana State Bank.....	1,563,345	2,385,464	386,750	575,209	1,563,345	28	3,363,327 14
Mechanics & Traders' Bank	2,332,573	3,090,211	648,710	1,172,919	2,332,572	65	4,197,414 73
Union Bank.....	147,697	455,393	26,195	128,169	445,670	46	6,544,201 98
<i>Non-specie-paying.</i>							
Consolidated Bank.....	871,569	10,325	865,775	10,325	1,929,568	68	1,828,751 92
Total.....	12,572,781	17,193,813	4,345,080	6,192,376	14,911,495	42	35,975,974 99

DEBT OF THE UNITED STATES.

We commenced, in the November number of the "Merchants' Magazine," the publication of a series of papers on "State Debts." The writer, it will be seen, glanced, in the first of the series, at the debts and financial condition of the European States, and closed with a statement of the debts and finances of the United States. The series, it will be perceived by reference to a former part of the present number of this Magazine, are continued under the more comprehensive title of the "Debts and Finances of the States of the Union: with reference to their General Condition and Prosperity." The figures and facts put forth by our correspondent are of unquestionable authority; but we do not hold ourselves responsible for any of the inferences or opinions of the author. Respecting, as we do, the right of private judgment in all matters, we shall never interfere with the free expression of opinions by any of our correspondents, however widely they may differ from our own. Neither do we feel called upon to manifest our dissent in every instance, in "black and white," through the medium of our Journal. We are impelled, however, by a sense of justice and humanity, to dissent from the morality of the doctrine indicated in the remark to be found in the closing paragraph of the first article on "State Debts," that it is "both right and proper" to draw the additional duties required to carry on the present anti-republican, anti-Christian war, from Mexico, the conquered country. If the war was justifiable on any principle of right, then, perhaps, it would be "right and proper" to compel the conquered country to defray the expenses of our army. But it is not; and we are so ultra on the subject that we are compelled to affirm, that, in this nineteenth century of Civilization and Christianity, no war, much less the Mexican, is either *right* or *justifiable*.

But we are digressing from our object, which was merely to add, by way of note to the article on State Debts in the November number, an official account, from the books of the United States Treasury, of the state of the finances, and the amount of public debt due on the 1st of November, 1847.

It will be perceived that the total amount is \$45,192,423 93. By reference to the official account from the books of the Treasury, given by the late Register, Mr. Gillett, dated December 1, 1845, it appears that the public debt due on the 4th of March, 1845, before this administration came into power, was \$17,788,799 62, a part of which has been paid

by this administration. Deduct this from the amount as above stated, now due, it leaves the amount as follows:—

Public debt now due.....	\$45,122,423 93
Public debt due 4th March, 1845.....	17,788,799 62

Increase of debt since 4th March, 1845.....	\$27,333,624 31
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In about eighteen months the war debt has amounted to about \$27,000,000, being at the rate of about \$18,000,000 per annum. From this, however, in future, we must deduct the increase of revenue flowing in under the new tariff, and whatever sum our government may hereafter obtain from military contributions on Mexico.

STATEMENT OF THE DEBT OF THE UNITED STATES ON THE 1ST OF NOVEMBER, 1847.

Of the principal and interest of the old funded and unfunded debt.....	\$122,288 53
Treasury notes issued during the war of 1812.....	4,317 44
Certificates of Mississippi stock.....	4,320 09
Debt of the corporate cities of the Dist. of Columbia	1,080,000 00
Loan of 1842, at 6 per cent.....	8,343,886 03
Loan of 1843, at 5 per cent.....	6,604,231 35
Treasury notes issued prior to 4th March, 1845, outstanding.....	239,239 30
	<hr/>
Outstanding Treasury notes issued under act of 22d July, 1846.....	\$1,079,000 00
Outstanding Treasury notes issued under act of 28th January, 1847.....	13,887,900 00
Loan of 1846, at 6 per cent.....	4,999,149 45
Loan of 1847, at 6 per cent.....	8,384,250 00
Loan of 1846, at 5 per cent, in payment of the 4th and 5th instalments of the Mexican indemnity.....	301,516 74
Military bounty land scrip.....	71,625 00
	<hr/>
Total.....	\$45,122,423 93

TREASURY DEPARTMENT, *Register's Office*, Nov. 19, 1847.

DANIEL GRAHAM, *Register*.

THREADED BANK NOTE PAPER.

Messrs. Crane & Co., of Dalton, Massachusetts, manufacturers of bank note paper, as we learn from the Journal of Commerce, have invented a very simple and efficient method of preserving the denomination of a bill from alteration. Threads of silk or cotton are arranged in parallel lines, lengthwise with the note, and embodied in the substance of the paper during its manufacture. A one dollar bill has one thread, and one is added for each denomination up to five dollars, then a ten dollar bill has six threads, and another is added for twenty, fifty, one hundred, five hundred, and one thousand; the last having eleven threads. It must be very difficult, if not impossible, to insert another thread after the note is finished, and as the threads mark its value as distinctly as the figures, the chances of a successful alteration are at least very greatly diminished. The Mechanics' Banking Association of New York, and several of the banks in the State and in the New England States, have ordered the threaded paper, and it will probably come into general use.

REVENUE DERIVED FROM THE TARIFFS OF 1842 AND 1846.

The Washington Union publishes a table, procured from the Treasury Department, of the receipts for duties in the principal ports of the United States for part of the month of September, 1847, showing an excess already under the tariff of 1846, over the same period under the tariff of 1842, of more than eight hundred thousand dollars. The excess for the first quarter in the first fiscal year under the tariff of 1846, already exceeds the same quarter under the tariff of 1842 upwards of three millions and a half of dollars. The

revenue from customs for the first quarter of the first fiscal year under the tariff of 1846 will exceed eleven millions of dollars.

COMPARATIVE GROSS RECEIPTS FROM CUSTOMS FOR SEPTEMBER.

PORTS.	Dates.	Tariff of 1842.	Tariff of 1846.
Portland.....	September 25	\$97 98	6,214 08
Salem.....	" 25	6,630 69	5,157 05
Boston.....	" 25	405,131 77	550,438 64
Providence.....	" 25	2,946 73	1,237 12
New York.....	" 25	1,538,019 91	2,019,444 12
Philadelphia.....	" 25	148,565 57	220,381 96
Baltimore.....	" 18	65,894 32	85,935 15
Norfolk.....	" 25	391 03	2,438 25
Charleston.....	" 25	20,107 65	60,195 24
Savannah.....	" 11	7 95	1,183 82
Mobile.....	" 11	284 12	420 17
New Orleans.....	" 18	103,883 82	141,294 32
Total.....		\$2,292,111 52	\$3,094,339 92
Tariff of 1842.....			2,292,111 52
Excess of tariff of 1846.....			\$802,228 40

The following are the returns of the duties received for the month of October, 1846, under the tariff of 1842, and October, 1847, under the tariff of 1846, in the ports of—

Boston.....	\$249,819 42	\$477,956 21	\$228,136 79
New York.....	773,207 97	1,243,983 01	470,775 04
Philadelphia.....	111,804 22	141,590 05	29,695 83
Baltimore.....	35,348 30	76,799 29	41,450 99
Total.....	\$1,170,269 91	\$1,940,328 56	\$770,058 65

Excess in favor of tariff of 1846..... \$770,058 65

BILLS OF EXCHANGE.

The following historical notice of Bills of Exchange is translated from the German of John Beckmann, professor of Economy at Gottingen, during a period of forty-five years. Beckmann was born at Hoyle, a small town in the kingdom of Hanover, in 1739. His decease took place on the 3d of February, 1811, in the 72d year of his age.

I shall not here repeat what has been collected by many learned men respecting the important history of this noble invention, but only lay before my readers an ordinance of the year 1394, concerning the acceptance of bills of exchange, and also two bills of the year 1404, as they may serve to illustrate further what has been before said on the subject by others. These documents are indeed more modern than those found by Raphael de Turre in the writings of the jurist Baldus, which are dated March 9, 1328; but they are attended with such circumstances as sufficiently prove that the method of transacting business by bills of exchange was fully established so early as the fourteenth century; and that the present form and terms were even then used. For this important information, I am indebted to Von Martens, who found it in a history written in Spanish, of the maritime trade, and other branches of commerce at Barcelona, taken entirely from the archives of that city, and accompanied with documents from the same source, which abound with matter highly interesting.

Among these is an ordinance issued by the city of Barcelona in the year 1394, that bills of exchange should be accepted within twenty-four hours after they were presented; and that the acceptance should be written on the back of the bill.

In the year 1404, the magistrates of Bruges, in Flanders, requested the magistrates of Barcelona to inform them what was the common practice, in regard to bills of exchange, when the person who presented a bill raised money on it in an unusual manner, in the case of its not being paid, and by these means increased the expenses so much that the drawer would not consent to sustain the loss. The bill which gave occasion to this question is inserted in the memorial. It is written in the short form still used, which certainly seems to imply great antiquity. It speaks of usance; and it appears that first and

second bills were at that time drawn, and that when bills were not accepted, it was customary to protest them.

It may not, perhaps, be uninteresting to the reader to give a short account of the present mode of conducting transactions of bills of exchange; this we condense from Waterston's *Encyclopædia of Commerce*, which contains the most recent and practical account.

The individual who issues the bill is called the drawer, the person to whom it is addressed, the drawee, until he consent to honor the draft, or obey the order or bill, by writing his name on the face of it, after which, he is called the acceptor. The bill may be passed from hand to hand, by delivery, or *endorsement*, and in the latter case, the person who makes over, is called the endorser, and the person who receives, the endorsee. The endorser commonly puts his name on the back, with or without a direction to pay to a particular person. He who is in legal possession of the bill and the obligation contained in it, is called the holder, or the payee. There is no particular form for a bill of exchange required by law, further than that the mandate to pay in money be distinct, and the person who is to pay, the person who is to receive, and the time of payment, shall be ascertainable beyond a doubt. By special statute in England, all bills under 20s. are void; and those between that sum and £5, must be made payable within twenty-one days after date; contain the name and description of the payee, and bear date at the time of making. Bills of exchange must be on a proper stamp.

Bills, though they are of the nature of a "chose in action," which is not strictly assignable, may be transferred from hand to hand, or negotiated. To allow of this, there must be negotiable words, as "or order," or "bearer." The various parties upon a bill, besides the acceptors, endorsers, drawers, and others, become liable for its payment, on failure of the acceptor.

Bills of exchange cease in England to be documents of debt, on the expiration of six years from the time named for payment.

In foreign bills, the term "usance" is sometimes employed to express the period of running in foreign bills. It means a certain time fixed by custom, as between any two places. An usance between this kingdom and Rotterdam, Hamburg, Altona, or Paris, or any place in France, is *one* calendar month from the date of the bill: an usance between us and Cadiz, Madrid, or Bilbon, *two*: an usance between us and Leghorn, Genoa, or Venice, *three*.

COMMERCIAL REGULATIONS.

TARIFF OF INSURANCE PREMIUMS—MINIMUM RATES.

[Adopted by the New Orleans Board of Underwriters.]

	MISSISSIPPI RIVER.	Per cent.
From places not above Bayou Sara, and from Bayou Lafourche.....		4
" above Bayou Sara and not above Natchez.....		35-100
" above Natchez and not above Milliken's Bend		40-100
" above Milliken's Bend and not above mouth of White River.....		4
" above mouth of White River and not above Randolph.....		60-100
" above Randolph and not above mouth of the Ohio River.....		65-100

EASTERN TRIBUTARIES OF THE MISSISSIPPI.

From places on Big Black River.....		1
" on Yazoo River, not above Yazoo City.....		60-100
" on Yazoo River, above Yazoo City, not above the junction of the Tallahatchee and Yalobusha Rivers.....		1
" on the Yalobusha River.....		1½
" on Tallahatchee River, not above the mouth of Cold Water River..		1½
" on Tallahatchee River, above mouth of Cold Water River, and not above Belmont.....		1½
" on Tallahatchee River, above Belmont.....		1½
" on Cold Water River.....		1½
" on Hatchee River.....		1
" on other tributaries of the Mississippi, eastern side thereof.....		1½

ARKANSAS RIVER.

From places not above Post of Arkansas.....	$\frac{3}{4}$
" above Post of Arkansas and not above Little Rock.....	1
From Little Rock and not above Spadra Bluff.....	$1\frac{1}{2}$
From places above Spadra Bluff and not above Fort Smith.....	2
" above Fort Smith.....	3

WHITE RIVER AND TRIBUTARIES.

From places on White River and not above Black River.....	1
" on White River, above mouth of Black River and not above Batesville.....	$1\frac{1}{2}$
" on White River, above Batesville.....	2
" on Black River, a tributary of White River.....	$1\frac{1}{2}$

WASHITA RIVER.

From places not above Bayou Bartholomew, and from lateral navigations, including Tensas, entering below that bayou.....	$\frac{4}{4}$
" above the mouth of Bayou Bartholomew and not above Camden, and from lateral navigation between these points.....	1
" above Camden.....	$1\frac{1}{2}$

BLACK RIVER, LA.

From all places not above the junction of the Tensas and Washita.....	40-100
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RED RIVER.

From places not above Cotile Landing.....	40-100
" above Cotile Landing and not above Natchitoches.....	$\frac{4}{4}$
" above Natchitoches, not above Shreveport, and from places on Lake Bistineau.....	1
" above Shreveport, not above the foot of the Raft, and from Lake Caddo.....	$1\frac{1}{2}$
" above the Raft, not above White Oak Shoals, and from places on Little River.....	2
" above White Oak Shoals on Red River.....	$3\frac{1}{2}$

PLACES IN LOUISIANA, WEST OF THE MISSISSIPPI AND SOUTH OF RED RIVER.

From places in Opelousas, and Bayous in the Parish of Rapides, south of Red River.....	$\frac{4}{4}$
" in the Attakapas, Terre Bonne, &c., (inland and sea navigation,) by steamboats or sail vessels.....	$\frac{4}{4}$

PEARL RIVER, AND PLACES EAST OF NEW ORLEANS.

From places on Pearl River, above Gainsville, with privilege of reshipping by sail vessels.....	2
" on Lakes Pontchartrain, Maurepas, Borgne, and tributaries, except the Pearl River, above Pearlington and Pascagoula River.....	$\frac{2}{2}$
From Mobile and Pensacola.....	$\frac{3}{3}$
From places on Pascagoula and Chickasawha Rivers, with liberty of reshipping on sail vessels and steamboats.....	$1\frac{1}{2}$
From St. Joseph's, Apalachicola, and St. Marks, by sail vessels.....	$\frac{3}{3}$

GULF PORTS, WEST OF NEW ORLEANS.

From mouth of Sabine River, by steamboats or sail vessels.....	1
From places on Sabine River, with liberty of reshipping by sail vessels.....	$1\frac{1}{2}$
From Galveston.....	1
From Matagorda Bay.....	$1\frac{1}{2}$

CUMBERLAND RIVER.

From places not above Nashville.....	$\frac{3}{3}$
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TENNESSEE RIVER.

From places not above Reynoldsburg.....	$\frac{4}{4}$
" above Reynoldsburg and not above Tuscaloosa, with liberty of lightening over Colbert's Shoals, as customary.....	1

Any cotton, by steamboats, not embraced in the preceding sections, shall nevertheless be covered at proportionable rates of premium, according to the risk.

*Commercial Regulations.**By good Flatboats.*

From places on Tennessee River.....	2
" on Duck River.....	2
" on Elk River.....	2½

On condition that every freighter or steersman of a flatboat shall prepare a true manifest of the cotton on board, at the place where the cargo is completed for New Orleans, so that the name of every consignee, with the quantity of cotton to his address, can be shown at all times. And

UNDER SPECIAL INSURANCE, AS FOLLOWS:

Cotton, by Keels and Flats, reshipped by good Steamboats.

[Premium for the whole Voyage.]

From places on Forked Deer and Obion Rivers, reshipped at junction with the Mississippi River.....	1½
" on Yalobusha River, not above Granada, reshipped at junction with the Tallahatchee.....	1½
" on Yalobusha River, above Granada, reshipped as above.....	2
" on Tallahatchee River, reshipped at junction with Yalobusha, $\frac{1}{2}$ per cent in addition to the respective steamboat rates from place of shipment.	

Cotton, by Flatboats, to New Orleans.

From places on Tennessee River.....	2
" on Elk River.....	2½
" on Duck River, Forked Deer River, Obion River, and Hatchee River	2
" on Tallahatchee River, not above the mouth of Cold Water River...	2
" " above the mouth of Cold Water River.....	2½
" on Cold Water River	2½
" on Yacknopalotha River.....	3
" on Yalobusha River, not above Granada.....	2
" " above Granada.....	2½
" on Big Black River, not above Way's Bluff.....	1½
" " above Way's Bluff and not above Rockport....	2
" " above Rockport.....	2½

It is understood that cotton by flat or keel-boats, destined for New Orleans, is not covered by this policy if towed by steamboats in any part of the voyage, unless said flat or keel-boats are in distress, and the towing is in the way of assistance.

ACTUAL TARES AT NEW ORLEANS.

We learn from the New Orleans "Price Current, Commercial Intelligencer," etc., that a petition of a number of grocers and merchants, praying the substitution of actual tares on various articles of merchandise, in place of the per centage now allowed, was some time since submitted to the Chamber of Commerce, who referred the subject to a select committee of seven members. At a special meeting of the Chamber, held on Monday evening, the 9th November, 1847, the committee presented the following report and resolutions, which were adopted. It will be seen, by their tenor, that a system of actual tares is recommended, to take effect on the 1st January next.

"NEW ORLEANS CHAMBER OF COMMERCE.—At a special meeting of the Chamber, held last Monday evening, the committee previously appointed on the subject of tares on articles of produce, submitted the following report and resolutions:

"The committee of seven members appointed at the last meeting of the Chamber of Commerce of New Orleans, to take into consideration the petition of one hundred and sixty-three firms, grocers and merchants of this city, claiming an alteration of the present per centage system of tares on lard, butter, cheese, sugar, rice, etc., etc., to the system of actual tares on those articles, begs leave, after a careful examination of the subject, and after obtaining the views of some of our eminent merchants, to submit the following report and resolutions:

"The evils complained of in the petition do exist in a great and increasing extent, and are prejudicial to the community at large, and particularly to the dealers, principally to the class of shippers to Europe, where actual tares are allowed. The complainants, therefore, have justice on their side.

"The attempts heretofore made at reform, by the Chamber of Commerce of New Orleans, increasing the per centage on various articles, have proved unavailing; the packers increasing the weight of packages in a greater ratio than the ultra per centage allowed by the Chamber of Commerce.

"The further increase of the per centage system could not, in the opinion of your committee, do away with the existing evils; similar causes invariably producing similar results; the packers increasing the weight of packages beyond the proportion of the per centage allowed.

"Your committee, therefore, comes to the conclusion that the only system likely to insure justice to all parties, and to raise the character of our market abroad, where the bulk of our receipts is usually shipped, is the system of actual tares.

"That the proposed change must, at first, occasion some difficulty, your committee is aware; a change even for the better, is not always generally understood; but this is not a sufficient objection, to retain a decidedly vicious system. The same objections have been made at the time to the alteration of the tare on tobacco, yet we find that, after a very short period, the working of the actual tare system gives general satisfaction.

"The sellers and purchasers of lard, butter, sugar, rice, etc., etc., can generally make a correct estimate of the real weight of the packages of the articles they deal in, from their external appearance; and it will only be necessary for the parties to come to an understanding as to tares, at the time of the transaction. It is believed by your committee, that the emptying and weighing of the packages will but seldom be resorted to.

"Your committee is also of opinion, that the adoption of the proposed system would, in a very short time, induce the packers to stamp the real weights on their packages, in order to avoid the contingency of opening a portion of them.

"Respecting the article of coffee, on which, from the nature of the packages, frauds in tare cannot be practised to any great extent, your committee would recommend that the same per centage be allowed as at the North and East. This per centage is also the government tare.

"Your committee could easily enlarge on the views presented above, but thinks it its duty to confine itself to what is strictly obvious.

"Your committee will now close with the following resolutions. The whole of which is respectfully submitted:

Resolved, That it is recommended by the Chamber of Commerce, of New Orleans, that the per centage system of tares now existing on the articles of lard, butter, cheese, tallow, stearine, sugar and rice, be abandoned from and after the 1st day of January next, 1848; and that actual tares be allowed in lieu thereof.

Resolved, That in contested cases, it is recommended that 5 per cent of the packages, selected equally by the two parties to the transaction, be emptied and weighed under their inspection, to form the basis of the average.

Resolved, That it be recommended, that the expenses of emptying, weighing, and repacking, be borne equally by the parties.

Resolved, That it be recommended, that 2 per cent be allowed as tare on coffee in bags, from and after the 1st day of January next, 1848.

Resolved, That the tariff of tares established by this Chamber, be made in conformity with the foregoing resolutions."

"The above report, on motion, was accepted by the Chamber, and the resolutions were separately submitted to the Chamber, and all adopted.

CHARLES BRIGGS, Secretary."

MODIFICATION OF THE BELGIAN TARIFF.

The Belgian government had, at the beginning of the year, charged a commission to revise the average value assigned to goods imported into Belgium or exported from it, in order to impart greater exactitude to the official returns of the foreign commerce of the country. The tariff, which serves as the basis of the usual valuation, had been established in 1833, and was no longer in unison with the present prices of goods. This commission has just terminated its labors, and a royal ordonnance has fixed the adoption of the new official values. Among the changes introduced by the commission are the following:—Cotton thread has been reduced from 4f. 50c. to 2f. 25c. the kilog.; woollen thread from 13f. to 8f.; slates from 40f. to 22f. the thousand; red quinquina is raised from 8f. to 24f.; resin is reduced from 2f. 40c. to 10c., or is twenty-four times lower; refined sugar from 1f. 20c. to 86c.; sulphur and tobacco are lowered more than one-half, and coffee more than a third; spirits and turpentine are more than doubled; cotton, wool, and silk tissues are diminished, when exported, 30 and even 40 per cent; glass is diminished two-thirds; raw zinc is reduced from 90c. to 57c.

NAUTICAL INTELLIGENCE.

NAUTICAL CALCULATIONS:

WITH REFERENCE TO THE ROUTES OF THE ATLANTIC STEAMERS.

The following tables, which were communicated to the "*Courier and Enquirer*" for publication in that ably-conducted journal by an accomplished sailor, will be "found useful, and valuable for future reference as well as for present information." The editors of the "*Courier*" express great confidence in the accuracy of the calculations; and, in order to render them valuable, appear to have taken pains to have them accurately presented.

The first table gives the distances between New York city and Southampton; the second, the distance between Boston and Liverpool *via* Halifax; the third, from New York city to Liverpool; the fourth presents, at one view, a recapitulation of the whole, and a comparative view of the difference of distances between New York and Liverpool and Boston and Liverpool; and a fifth table gives the route of the French steamers, and the distances they sail. In all these cases, the calculations are made both by "Mercator's sailing," and the "Great Circle."

COURSES AND DISTANCES BETWEEN THE BATTERY, IN NEW YORK, AND SOUTHAMPTON, ENGLAND,
BY "MERCATOR'S SAILING."

	Miles.
From Battery to Sandy Hook.....	17
" Sandy Hook to lat. $40^{\circ} 40'$ N., long. 69° West, course N. 86, 45 E. true.....	229
" lat. $40^{\circ} 40'$ N., long. 69° W., to lat. $49^{\circ} 40'$ N., long. $6^{\circ} 18'$ W., course N. 78, 27 E. true.....	2,697
(Scilly Light would then bear N. true, 14 miles distant.)	
" position off Scilly Light to Start Point Light, bearing N. 8, 26 W. true, course N. 73, 07 E.....	108
" position off Start Point Light to Needles Buoy, course N. 70, 19 E..	82 $\frac{1}{4}$
" Needles Buoy to Southampton.....	22 $\frac{1}{4}$
Distance up Channel.....	213

Total distance from the Battery, in New York, to Southampton, England, by
" Mercator's Sailing".....

3,156

COURSES AND DISTANCES BETWEEN THE BATTERY, IN NEW YORK, AND SOUTHAMPTON, ENGLAND,
BY "MERCATOR'S AND GREAT CIRCLE SAILING."

From Battery to Sandy Hook.....	17
" Sandy Hook to lat. $40^{\circ} 40'$ N., long. 69° W., course N. 86, 45 E. true, " Mercator's sailing".....	229
" lat. $40^{\circ} 40'$ N., long. 69° W., to lat. $49^{\circ} 40'$ N., long. $6^{\circ} 18'$ W., course N. 56, 13 E. true, "Great Circle sailing".....	2,628
(Scilly Light would then bear N. true, 14 miles distant.)	
" position off Scilly Light (up Channel to Southampton).....	213

Total distance from the Battery, in New York, to Southampton, England, by
" Mercator's and Great Circle sailing".....

3,087

Note.—The arc of the Great Circle, from lat. $40^{\circ} 40'$ N., long. 69° W., to lat. $49^{\circ} 40'$ N., long. $6^{\circ} 18'$ West, cannot be strictly followed, as the circle crosses the parallel of latitude of Cape Race (Newfoundland) in long. $53^{\circ} 53'$ W., or 34 nautical miles West of the Cape, and a course must be shaped to clear the Cape. The distance saved, could the circle be strictly followed, would be 69 miles.

COURSES AND DISTANCES FROM THE DOCK IN BOSTON TO THE DOCK IN LIVERPOOL, ENGLAND,
" MERCATOR'S SAILING."

From dock in Boston to Boston Light, bearing N. N. W. true $\frac{1}{4}$ distant.....	9
" position off Boston Light to lat. $43^{\circ} 19'$ N., long. $65^{\circ} 21'$ W., course N. 76, 29 E. true.....	252
(Barracoa Point, Nova Scotia, would then bear N. N. W. true, 10 miles distant.)	

From position off Barracoa Point to Sambro Island Light, bearing W. true 2 miles distant, N. 50, 37 E.....	107
" position off Sambro Light to Halifax.....	12
Total distance of steamboat route from Boston to Halifax.....	380
" Halifax out to Sambro Light, bearing W. true 4 miles distant, from which take departure.....	12
(Lat. of ship 44° 33' N., long. 63° 28' W.)	
" position off Sambro Island Light to lat. 51° 12' N., long. 9° 29' W., course N. 79, 34 E. true.....	2,203
(Cape Clear would then bear N. true 14 miles distant.)	
" position off Cape Clear to Liverpool docks (up Channel).....	288
Total distance of steamboat route from Halifax to Liverpool.....	2,883

COURSES AND DISTANCES FROM THE DOCK IN BOSTON TO HALIFAX, AND THENCE TO LIVERPOOL IN ENGLAND, BY "MERCATOR'S AND GREAT CIRCLE SAILING."

From dock in Boston to dock in Halifax.....	380
" Halifax out to Sambro Island Light, bearing W. true 4 miles distant, from whence take departure.....	12
" departure to lat. 46° 30' N., long. 53° 04' W., course N. 75, 00 E. true, "Mercator's sailing".....	453
(Cape Race, Newfoundland, would then bear N. 9½ miles distant.)	
" position off Cape Race to lat. 51° 12' N., long. 9° 29' W., course N. 64, 23 E. true, "Great Circle sailing".....	1,716
(Cape Clear would then bear N. true, 14 miles distant.)	
" position off Cape Clear to dock in Liverpool.....	288
Total distance.....	2,849

(Shortest route from Boston, via Halifax, to Liverpool, England.)

COURSES AND DISTANCES FROM THE BATTERY, IN NEW YORK, TO LIVERPOOL, ENGLAND, BY "MERCATOR'S SAILING."

From Battery, in New York, to Sandy Hook.....	17
" Sandy Hook to lat. 40° 40' N., long. 69° W., course N. 86, 45 E. true.....	229
" lat. 40° 40' N., long. 69° W., to lat. 51° 12' N., long. 9° 39' W., course N. 75, 39 E. true.....	2,550
(Cape Clear Light would then bear N. true, 14 miles distant.)	
" position off Cape Clear to Tuskar Rock Light, bearing N. true 3 miles distant, course N. 64, 51 E.....	134
" position off Tuskar Rock Light to the Skerries Rock Light, bearing S. 1 mile distant, course N. 37, 22 E. true.....	97
" position off Skerries to the Bell Buoy, Victoria Channel.....	46
" Bell Buoy to Coburg Dock.....	11
Distance up Channel.....	288

Total distance from the Battery, in New York, to Coburg Dock, Liverpool, by "Mercator's sailing"..... 3,084

COURSES AND DISTANCES BETWEEN THE BATTERY, IN NEW YORK, AND LIVERPOOL, ENGLAND, BY "MERCATOR'S AND GREAT CIRCLE SAILING."

From Battery to Sandy Hook.....	17
" Sandy Hook to lat. 40° 40' N., long. 69° W., course N. 86, 45 E. true "Mercator's sailing".....	229
" lat. 40° 40' N., long. 69° W., to lat. 51° 12' N., long. 9° 29' W., course N. 54, 35 E. true "Great Circle sailing".....	2,489
(Cape Clear would then bear N. true 14 miles distant.)	
" position off Cape Clear to Coburg Dock, as above.....	288

Total distance from the Battery, in New York, to Coburg Dock, Liverpool, by "Mercator's or Great Circle sailing"..... 3,023

Note.—The arc of the Great Circle, from lat. 40° 40' N., long. 69° W., to lat. 51° 12' N., long. 9° 29' W., cannot be strictly followed, as it crosses the parallel of Cape Race in long. 55° 05' W., or 83 nautical miles West of the Cape, and a course must be shaped to

clear the Cape. The distance saved, could the Great Circle be strictly followed, would be 61 miles.

COURSES AND DISTANCES FROM NEW YORK TO CHERBOURG, "MERCATOR'S SAILING."

From Battery, in New York, to Sandy Hook.....	17
" Sandy Hook to lat. $40^{\circ} 40'$ N., long. 69° W., course N. 86, 45 E.....	239
" lat. $40^{\circ} 40'$ N., long. 69 W., to lat. $49^{\circ} 40'$ N., long. $6^{\circ} 18'$ W., course N. 78, 27 E.....	2,697
(Scilly Light would then bear N. true 14 miles distant.)	
" position abreast of Scilly to lat. $49^{\circ} 49'$ N., long. $2^{\circ} 22'$ W., course N. 86, 36 E.....	152
(The Casket Lights would then bear South true 6 miles distant.)	
" position off Casket, into Cherbourg, "Mercator's sailing".....	33
Total distance.....	3,128

COURSES AND DISTANCES BETWEEN NEW YORK TO CHERBOURG, "MERCATOR'S AND GREAT CIRCLE SAILING."

From Battery, in New York, to Sandy Hook.....	17
" Sandy Hook to lat. $40^{\circ} 40'$ N., long. 69° W., course N. 86, 45 E. "Mercator's sailing".....	229
" lat. $40^{\circ} 40'$ N., long. 69 W., to lat. $49^{\circ} 40'$ N., long. $6^{\circ} 18'$ W., course N. 56, 13 E. "Great Circle sailing".....	2,628
(Scilly Light would then bear N. true 14 miles distant.)	
" position off Scilly to lat. $49^{\circ} 49'$ N., long. $2^{\circ} 22'$ W., course N. 86, 36 E. "Mercator's sailing".....	152
(The Casket Light would then bear South true 6 miles distant.)	
" position off Casket into Cherbourg.....	33
Total distance, "Mercator's and Great Circle sailing".....	3,059

Distance from the Battery, in New York, to Cherbourg, France, by "Mercator's sailing"..... 3,128

Distance from the Battery, in New York, to Cherbourg, France, by "Mercator's and Great Circle sailing"..... 3,059

Difference..... 69

The Great Circle cannot be strictly followed from lat. $40^{\circ} 40'$ N., long. 69° W., to position off Scilly, as it crosses the parallel of Cape Race (Newfoundland) in long. $53^{\circ} 53'$ W., or 34 nautical miles West of the Cape, and a course must be shaped to clear Cape Race.

Vessels bound West, the course in the Great Circle is preferable, as it passes far North of the Gulf Stream, and after passing Cape Race (Newfoundland) a favorable current will be experienced, setting to the W. S. W.

RECAPITULATION.

Distance from Battery, in New York, to Southampton docks, by "Mercator's sailing," is.....	3,156
" dock in Boston to dock in Halifax, thence to dock in Liverpool, by "Mercator's sailing," is.....	2,883
Difference.....	273
Distance from Battery, in New York, to Southampton docks, by "Mercator's and Great Circle sailing," is.....	3,087
" dock in Boston to dock in Halifax, thence to dock in Liverpool, by "Mercator's and Great Circle sailing," is.....	2,849
Difference.....	238
Distance from Battery, in New York, to dock in Liverpool, by "Mercator's sailing," is.....	3,084
" dock in Boston to dock in Halifax, thence to dock in Liverpool, by "Mercator's sailing," is.....	2,883
Difference.....	201

Distance from Battery, in New York, to dock in Liverpool, by "Mercator's and Great Circle sailing," is.....	3,023
" dock in Boston to dock in Halifax, thence to dock in Liverpool, by "Mercator's and Great Circle sailing," is.....	2,849
Difference.....	174
Distance from Battery, in New York, to Southampton docks, by "Mercator's sailing," is.....	3,156
" Battery, in New York, to Liverpool docks, by "Mercator's sailing," is.....	3,084
Difference.....	72
Distance from Battery, in New York, to Southampton docks, by "Mercator's and Great Circle sailing," is.....	3,087
" Battery, in New York, to Liverpool docks, by "Mercator's and Great Circle sailing," is.....	3,023
Difference.....	64
Distance from Battery, in New York, to Southampton docks, by "Mercator's sailing," is.....	3,156
" dock in Boston to dock in Halifax, thence to Liverpool docks, by "Mercator's and Great Circle sailing," is.....	2,849
Difference.....	307

Should the Great Circle be followed, on the outward passage from New York, to Southampton or Liverpool, it would take the vessel to the North of the Gulf stream, and by which a counter current of three-fourths to one mile per hour would be found setting West Southwest.

Supposing the Boston and Halifax steamers to sail on the Great Circle on the outward passage to Liverpool from position off Cape Race, the difference of distance between the New York and Southampton steamers and the Boston, Halifax, and Liverpool steamers, is 307 miles, or equal to 8 1-10 more distance run by the New York and Southampton steamers than the Boston, Halifax, and Liverpool steamers.

The calculations are in nautical miles. 69 $\frac{1}{2}$ statute miles make a degree of 60 nautical miles. To make a nautical mile, add 15 5-6ths to a statute mile.

FLOATING LIGHT, BAHAMA BANK, OFF ISLE OF MAN.

Trinity House, London, September 23, 1847.

Notice is hereby given, that in compliance with the request of shipowners, masters of vessels, and other persons interested in the navigation between the Isle of Man and the coast of Cumberland, a floating light vessel, the equipment of which will be completed in a few weeks, will be moored off the Eastern part of the shoal, called the Bahama Bank, off Ramsay Bay.

Mariners will observe, that on board this vessel two fixed lights will be exhibited on separate masts, and that it will be thereby readily distinguishable from the neighboring shore lights on the Isle of Man, and on the English and Scottish coasts.

Notice of the night on which the lights on board this vessel will be first exhibited, together with all needful particulars, in respect of the exact position of the latter, will be hereafter published. By order,

J. HERBERT, Secretary.

A NEW HARBOR OF REFUGE.

Captain Williams, of the Iron Duke, Dublin and Liverpool mail-steamer, has written the following letter to the Chairman of the Liverpool Underwriters' Association, pointing out a new harbor of refuge near Point Lynas:—

"SIR—Having observed that Moel Free Roads, situate in Redwharf Bay, near Point Lynas, are not frequented by steamers and sailing vessels as a roadstead, during stress of weather, I beg leave through you to introduce the same to the notice of the captains frequenting the port, being fully convinced of its advantageous position and safety—the soundings vary from one to thirty fathoms—having made use of the same. J. P. WILLIAMS."

BUOYS IN THE DELAWARE BAY.

The following Buoys have been recently placed in the Delaware Bay by the United States surveying schooners *Nautilus* and *Wave* :—

No.	Where situated.	Shape.	Color of Buoys.
1	Entrance to Coaster's Channel	Spar	Red.
2	Through channel to backwater	"	*Red.
3	Mummy's Shoal Spit.....	"	Cross stripes, red and black.
4	Crow Shoal Spit.....	"	† " "
5	Blunt's Channel.....	"	Perpendicular stripes, white and black.
6	Richard's Channel.....	"	" " "
7	Tail of Shears.....	Can	‡Black.
8	South Spit of Flogger.....	Spar	Cross stripes, red and black.
9	Miah Maul Shoal.....	Can	Red.
10	Blake's Channel, west side.....	Spar	Black.
11	" "	"	Black.
12	" Flogger.....	"	Red.
13	Off Simons's Ditch.....	"	Black.
14	Upper Spit Flogger.....	"	Red.
15	Ship John Shoal.....	Can	Red.
16	Off Goose Island Bulkhead.....	Spar	Black.
17	Upper Spit Bulkhead.....	"	Black.
18	Cherry Island Flats.....	"	Cross stripes, red and black.
19	South Spit Marcus Hook Bar.	"	Red.
20	South Spit of Windmill Island	"	Red.
21	Off Richmond.....	"	Black.

SAILING DIRECTIONS.

Vessel entering keep to larboard of red buoys, to starboard of black; either side of cross-striped red and black. Black and white perpendicular stripes mark a channel buoy in best water.

By direction of the Superintendent of the United States Coast Survey.

J. R. GOLDSBOROUGH,
Lieut. Comm. U. S. N., Assistant Coast Survey.

DISCOVERY OF DANGER IN GEORGE'S BANK.

The "Boston Mercantile Journal," edited by Captain Sleeper, an experienced shipmaster and navigator, publishes the following extract from an exchange, with the accompanying comments :—

"The Swedish brig Skelleftea, at New York, reports: 19th ult., lat. $41^{\circ} 34'$, lon. $68^{\circ} 15'$, saw land with rocks on it about five feet high. Bark Bostonian, hence for Norfolk, was in company at the time, and her people also saw it."

We have since conversed with Passed Midshipman Parker, who was on board the Bostonian in charge of a draft of United States seamen, and he informs us that the statement, so far as relates to a danger existing in George's Bank, other than what is known as "George's Shoal," is correct. Breakers were distinctly seen in lon. 68° , by chronometer, and lat. $41^{\circ} 16'$, by a meridian observation taken at the time. It is believed that no rocks were seen, but of the dangerous character of these breakers there could be no doubt.

The location of this danger, as will be seen by a reference to Blunt's latest chart of the Northeastern coast of North America, is about twenty-five miles S. S. W. of the shoalest part of George's Shoal—the only "danger" which existed on the bank when it was surveyed by Lieutenant Wilkes, more than eight years ago. It is laid down in the above chart, as "Little George's," with twenty-six fathoms around thirteen fathoms sand and gravel bottom, on the shoal.

If stones and gravel have accumulated on this spot within a few years, to such an extent as would appear from the above, it is highly important that the fact should be positively ascertained and made known to navigators, and we trust that a government vessel will be despatched at once to ascertain all the particulars of the case, which can be done without much difficulty, the positions of the shoal having been so definitely pointed out by Passed Midshipman Parker.

* Cross arm of wood, with upper part plate, at least 1 foot wide, 14 inches long, $\frac{3}{4}$ inch thick. Letters B. W.

† Copper vane, 12 in. wide—letters T. S. ‡ One anchor fluke fast to head of buoy.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

THE OLD COLONY RAILROAD.

This road, which extends from the South Cove, Boston, to Plymouth, a distance of $37\frac{1}{2}$ miles, cost, embracing road and equipment, \$1,397,058. The act incorporating the Old Colony Railroad Company passed the Legislature March 16, 1844, and the road was opened for travel on the 19th of November, 1845. The corporation was not fully organized until the 25th of June, 1844, when the following gentlemen were chosen directors; namely, John Sever, Addison Gilmore, Uriel Crocker, Isaac L. Hedge, Nathan Carruth, Jacob H. Loud, and William Thomas. The earnings of the road for the transportation of passengers, for the few days prior to the 1st of December, 1845, amounted to \$3,827. The number of miles run by the passenger trains, from its partial opening on the 10th of November, to December 1st of the same year, was 2,550. The H rail, weighing fifty-six pounds per yard, is used. Maximum grade, with its length in main road, is $39\frac{1}{2}$ feet; length, 6,000 feet. The total rise and fall in main road is 5,072 feet; the total length of straight line is a few feet more than 30 miles. The total number of miles run by passenger, freight, and other trains in 1846, was 105,465. The average rate of speed adopted for passenger trains, including stops, is 20 miles per hour.

We recently passed over this road, and it affords us great pleasure to speak of its excellent management. In passing between Boston and Plymouth we made fifteen stops, to put down and take up passengers, and reached Plymouth in an hour and three-quarters. Mr. Sampson, the conductor of the train which we had the good fortune to take on that occasion, is admirably well qualified for his station;—indeed, it is seldom that we meet with one in that capacity so intelligent, and withal so gentlemanly in deportment. The importance of securing such men for conductors cannot be too highly estimated by the directors of our railroads. The following table exhibits the different towns through which the railroad passes, the distances, and the rates of fares:—

Towns.	Miles.	Fares.	Towns.	Miles.	Fares.
Boston.....	...	.....	Abington.....	$19\frac{1}{4}$	\$0 50
Dorchester.....	4	\$0 12 $\frac{1}{4}$	South Abington.....	21	0 55
Neponset.....	$5\frac{1}{2}$	0 15	North Hanson.....	$23\frac{1}{4}$	0 60
Quincy.....	8	0 25	South Hanson.....	$24\frac{1}{4}$	0 65
Braintree.....	$10\frac{1}{4}$	0 30	Halifax.....	28	0 75
South Braintree.....	$11\frac{1}{4}$	0 33	Plympton.....	30	0 80
South Weymouth...	15	0 40	Kingston.....	$33\frac{1}{4}$	0 90
North Abington....	18	0 45	Plymouth.....	$37\frac{1}{2}$	1 00

The length of the Bridgewater Branch, which connects with the "Old Colony Road" at South Abington, and belongs to the same company, is $6\frac{1}{2}$ miles in length. It passes through Northville, Joppa, and East Bridgewater, to Bridgewater, $27\frac{1}{2}$ miles from Boston; fare, 65 cents. The rates of freight on the Old Colony Road are quite moderate. Coal, iron, manure, lumber, corn, grain, sugar, salt, butter, groceries, and dry goods, are transported over it at $4\frac{1}{2}$ cents per ton per mile; light and bulky merchandise at the same rate; a ton measuring 140 cubic feet. The charge for transporting horses is $6\frac{1}{2}$ cents; two-wheeled carriages, $4\frac{1}{2}$ cents; stage-coaches, omnibuses, &c., 9 cents per mile. The total income of the road from all sources in 1846, was \$125,711; and the nett earnings, after deducting expenses, \$68,481. This road intersects with the Fall River Railroad at South Braintree, $11\frac{1}{4}$ miles from Boston. Should, however, the Fall River Company succeed in procuring a charter, which is in contemplation, they will extend their road to Boston, varying the route but little from that of the "Old Colony."

No road in New England, so far as we are acquainted, has been more judiciously or

carefully managed; which is saying a good deal, in a section of the country where the railroad system has been carried to so high a point of perfection. The president, Mr. Nathan Carruth, a retired merchant, is a thorough-going business man, and devotes much of his time in promoting the interests of the company. The directors were exceedingly fortunate in securing the services of Mr. J. H. Moore, a gentleman of large experience in the management of railroads, and one of the most accomplished superintendents in the country.

We have no recent data at hand to exhibit the earnings of this road for the past year, and must therefore await the publication of the annual report, which is made up some time during the present month.

EASTERN RAILROAD.

This road, which extends from Boston, Massachusetts, to Portland, in the State of Maine, was opened for travel to Salem in 1839; to Portsmouth, N. H., in 1840; and to Portland, Me., in 1842. The total cost of the road was \$2,749,530; which, together with the valuation of the property accounts, makes a total outlay of \$3,406,043. The stock of the company is divided into 27,325 shares. The earnings of the road for the year ending June 30, 1847, were a fraction more than 9 per cent, the nett earnings having been \$239,856. Eight per cent, however, was divided among the stockholders, leaving a surplus of \$39,256, which was appropriated as follows:—To Sinking Fund, \$10,000; and to Renewal Funds, \$12,000. The total surplus capital of the company amounted to \$135,404 on the 30th of June, 1847.

The following synopsis of the past, as compared with the preceding years, (which we derive from the last Annual Report of D. A. NEAL, Esq., the President of the Eastern Railroad Corporation,) shows as favorable results as could be expected:—

	Year ending June 30, 1846.	Six months end'g Dec. 31, 1846.	Six months end'g June 30, 1847.	Year ending June 30, 1847.
Receipts from passengers....	\$296,161 83	\$180,592 21	\$143,367 81	\$323,960 02
" merchandise....	39,330 66	22,033 78	24,311 37	46,345 15
" mails.....	9,305 25	4,646 00	4,299 13	8,945 13
" incidentals....	3,586 94	20 00	443 29	463 29
Total.....	348,384 68	207,291 99	172,421 60	379,713 59
Expenses.....	123,614 58	70,600 69	56,978 88	127,579 57
Balance.....	224,770 10	136,691 30	115,442 72	252,134 02
Rents, &c.....	5,425 08	3,741 06	4,939 04	8,680 10
Interest, and Profit and Loss	6,743 36	.....	8,077 23	8,077 23
Total.....	236,938 54	140,432 36	128,458 99	268,891 35
Interest paid State, &c.....	25,000 00	16,535 33	12,500 00	29,935 33
Balance.....	211,938 54	123,897 03	115,958 99	239,856 02
Dividends.....	182,600 00	91,300 00	109,300 00	200,600 00
Balance.....	29,338 54	32,597 03	6,658 99	39,256 02
Renewal Fund.....	12,000 00	12,000 00	.....	12,000 00
Balance.....	17,338 54	20,597 03	.....	27,256 02
Sinking Fund.....	16,743 36	5,000 00	5,000 00	10,000 00
Surplus.....	\$595 18	\$15,597 03	\$1,658 99	\$17,256 02
Surplus June 30, 1846.....				13,027 01
" 30, 1847.....				\$30,283 03

	Year end'g June 30, '46.	Six m'ths end'g Dec. 31, 1846.	Six m'ths end'g June 30, 1847.	Year end'g June 30, '47.
No. of passengers carried.....	735,452	407,551	373,222	780,774
No. of tons merchandise carried.....	34,216	20,578	19,921	40,699
No. miles run by pass. and fr'ght trains	219,054	124,088	112,612	236,700
Expenses per mile " "	56	.....	.....	54
No. of passengers carried one mile.....				13,281,028
No. of tons merchandise carried one mile.....				1,156,229

We give below a list of the towns through which the road passes, the distances, and the rates of fares:—

Towns.	Miles.	Fares.	Towns.	Miles.	Fares.
Boston.....	...	.....	Hampton.....	44	\$1 24
Chelsea.....	4	\$0 25	Greenland.....	49	1 32
Lynn.....	9	0 25	Portsmouth, N. H....	54	1 48
Salem.....	14	0 40	Eliot.....	60	1 50
Beverley.....	16	0 45	South Berwick, Me....	66	1 75
Wenham.....	20	0 56	North Berwick.....	73	1 95
Ipswich.....	25	0 70	Wells.....	77	2 25
Beverley.....	29	0 80	Kennebunk.....	82	2 40
Newburyport.....	34	1 00	Saco	92	2 75
Salisbury.....	36	1 08	Scarborough.....	100	3 00
Seabrook.....	40	1 16	Portland.....	105	3 00

The cars on this road are commodious, and handsomely furnished. It has been singularly fortunate as regards accidents, which are of rare occurrence. During the past year, one person fell on the track and lost an arm; two children were struck by the engine, one of whom was killed; and three men, attached to the general train, were wounded while sitting on the side of the cars, in passing some others that were on a side track; but of the passengers, nearly 800,000, carried in the trains, not one received the slightest injury. Mr. John Kinsman is one of the most energetic and efficient superintendents in the country. He manages the road with great caution, and, we believe, with entire satisfaction to the corporation and the public.

TOLLS COLLECTED ON THE NEW YORK CANALS

FOR THE FISCAL YEAR 1847, COMPARED WITH 1846.

The following statement, derived from the books of the Canal Department, shows the amount received for tolls by the Commissioners of the Canal Fund on each canal, and from the railroad companies, for the fiscal years 1846 and 1847, ending on the 30th of September:—

	1846.	1847.
Erie Canal	\$2,492,062 84	\$3,154,089 69
Champlain Canal.....	114,169 05	103,058 79
Total Erie and Champlain Canals.....	\$2,606,231 69	\$9,257,148 48
Oswego Canal.....	60,101 35	70,839 01
Cayuga and Seneca Canal.....	29,395 23	26,908 78
Chemung Canal.....	15,862 99	13,677 28
Crooked Lake Canal.....	1,835 47	1,774 55
Chenango Canal.....	25,578 76	25,620 01
Genesee Valley Canal	24,184 60	25,055 20
Oneida Lake Canal.....	604 41	487 49
Oneida River Improvement.....	.....	118 22
Seneca River Towing Path.....	379 27	400 41
Total canal tolls.....	\$2,764,182 87	\$3,422,029 43
Railroad tolls.....	23,201 89	38,946 49
Total.....	\$2,787,384 76	\$3,460,975 92

RATES OF FREIGHT AND TOLL ON THE READING RAILROAD.

The Reading Railroad Company, under date of October 27th, 1847, publish the following as the fall and winter rates of freight and toll on coal transported by this company:—

	FROM—	Mount Carbon.	Schuylkill Haven.	Port Clinton.
To Richmond.....		\$1 70	\$1 60	\$1 40
Philadelphia.....		1 70	1 60	1 45
Inclined Plane.....		1 60	1 50	1 30
Nicetown.....		1 60	1 50	1 30
Germantown Railroad.....		1 60	1 50	1 30
Falls of Schuylkill.....		1 45	1 35	1 20
Manayunk.....		1 35	1 25	1 15
Consheshocken and Plymouth Railroad.....		1 25	1 25	1 10
Turn-out, one mile below Norristown.....		1 20	1 20	1 10
Norristown or Bridgeport.....		1 20	1 20	1 10
Port Kennedy.....		1 20	1 20	1 10
Valley Forge.....		1 20	1 20	1 10
Phoenixville.....		1 15	1 15	1 05
Royer's Ford.....		1 10	1 10	1 00
Pottstown.....		1 10	1 10	1 00
Douglasville.....		1 10	1 10	1 00
Baumstown.....		1 05	1 05	95
Reading.....		1 00	1 00	90
Between Reading and Mohrsville.....		95	95	85
Mohrsville.....		80	80	70
Hamburg.....		60	60	50
Orwigsburgh.....		50	50	50

BRITISH AND FOREIGN RAILWAYS.

The following is a statement of the total amount of railway calls which have been made during the present year, showing the amount called up each month, and distinguishing the English from the foreign companies, viz:—

Calls payable in January.....	British.	Foreign.	Total.
" February.....	£4,457,968	£1,662,000	£6,119,968
" March.....	1,454,881	80,000	1,534,881
" April.....	3,083,697	502,000	3,585,697
" May.....	4,313,439	40,000	4,353,439
" June.....	2,965,344	514,000	3,479,344
" July.....	2,454,756	1,550,000	4,004,756
" August.....	3,894,545	1,032,000	4,926,545
" September.....	2,922,839	62,000	2,984,839
" October.....	3,325,874	800,000	4,125,874
Total.....	£31,538,994	£6,334,360	£37,873,354

From the above, it will be seen, that £6,334,360 belong to foreign railways, and are, therefore, only in part payable by English shareholders, leaving £31,538,994 as the actual amount called for by English railways.

PROVIDENCE AND WORCESTER RAILROAD.

The Providence and Worcester Railroad was opened for public travel on Monday, the 25th of October, 1847, on which occasion a train of twenty cars, with two locomotives attached, and containing a pleasure party of about fifteen hundred persons, left Providence at 8 o'clock, A. M. Dinner was provided at Worcester, and the party returned to their place of departure about 5 P. M., after a very pleasant trip, during the course of which they were saluted by the discharge of artillery along the line of the road, and were received at home with the ringing of bells, firing of guns, and other demonstrations of rejoicing.

JOURNAL OF MINING AND MANUFACTURES.

POTTSVILLE AND ITS MACHINE-SHOPS.

D. K. MINOR, Esq., the intelligent editor of "*The American Railroad Journal*," gives, in a late number of that Journal, the following statement of facts, in relation to Pottsville and its manufactures, derived, we infer, from personal observation and inquiry. We hope, soon, by the assistance of some one of the enterprising citizens of that place, to embrace "Pottsville" in our series of "Commercial Cities and Towns of the United States."

"It would be somewhat difficult for a person resident in, and who left the little village of Pottsville, Schuylkill county, Pennsylvania, twenty-five years ago, to recognize the place on his return to it at this time. In 1824, there were but five houses; now, there are probably fifteen hundred, with eight or nine thousand inhabitants, most of whom are, directly or indirectly, connected with the coal business. Among the establishments which attract the attention of strangers, are the machine-shops of Messrs. Haywood & Snyder, and E. W. McGinniss—which supply the steam-engines, and large amount of machinery, for the numerous collieries, and manufacturing establishments of the coal region. These establishments have both grown up from simple blacksmith-shops, to the employment of from one to two hundred hands each.

"The establishment of Mr. McGinniss is, we believe, employed mainly in the manufacture of engines and machinery for coal operations; but that of Haywood & Snyder, who had also an establishment at Danville, on the Susquehannah, has acquired a high reputation for making the machinery of rolling-mills. They have not only furnished the machinery and rolls for several mills in this State, where railroad iron is made, but also for the large establishment of Mr. Cooper, of Trenton, N. J.; and even for one or two mills in Massachusetts—thus showing conclusively, that merit, however modest and retiring, will be discovered and appreciated.

"The visitor to this establishment at Pottsville, can readily trace, and almost note the years of the growth of this concern, by the various additions and extensions of the buildings. The veritable old smith's shop, we believe, is still standing, in which Benjamin Haywood, the very enterprising and intelligent senior partner, made horse-shoes and horse-nails, when he first came to the place. This is a remarkable instance of the success and prosperity of honest industry, guided by good judgment, and extraordinary energy of character.

"We are not aware how long Mr. Haywood worked by himself—but we find him now connected with two partners, men of character and business habits; Mr. G. W. Snyder, in the department of machinery, and Mr. Benjamin Milnes, in the coal mining, and its various operations. We are told that the aggregate amount of their business, in the two departments—machinery by Haywood & Snyder, and coal, by Haywood & Milnes—amounted, in 1846, to over seven hundred thousand dollars.

"Let the young men of this country, and of other countries, too—for Mr. Haywood is a native of England—and especially young mechanics, learn a lesson from this, and recollect that industry, perseverance, and integrity, may be as successful at the anvil, or other mechanical pursuits, as in mercantile operations, or the learned professions—and twice as useful."

A COTTON FACTORY IN MISSISSIPPI.

A company of gentlemen of Columbus, Ga., have associated themselves together for the purpose of establishing an extensive steam cotton factory at or near a place called Drane's mills, Choctaw county, Mississippi; to which place one of the company has already removed with his family, to be followed next spring by the other gentlemen interested in the project. From the ample means, well-known perseverance, and judicious enterprise of the gentlemen composing this company, says the Columbus Democrat, we may congratulate the people of Choctaw county, Miss., on the valuable addition which will be thus made to their population, and the immense advantages which are likely to flow from the establishment of manufactories in their midst.

PRODUCT OF THE LAKE SUPERIOR COPPER MINES.

Colonel D. R. McNair, as we learn from the "*Lake Superior News*," the organ of the mining interests in that region, has made up his report to the 30th of September, 1847, which exhibits returns of ores and metals raised, and shipments out of the district for smelting, from the commencement of operations, as follows:—

COMPANIES.	Ores and metals raised. Pounds.	Amt ship'd. Pounds.
Lake Superior Company.....	1,114,841	34,441
Eagle Harbor Company.....	321,000	81,164
Copper Falls Company.....	317,050	15,263
Pittsburgh and Boston Copper Harbor Company.....	7,983,340	1,497,481
Northwest Company.....	190,000	7,264
Lac La Belle Company.....	200,000	1,329
Suffolk Company.....	300,000	383
Algonquin Company.....	120,000	11,135
Mendenhall Company.....	80,000	4,049
All others making reports.....	1,327,969	40,296
Total.....	10,244,200	1,693,805

Leaving the balance of 8,550,395 lbs. of mineral to be smelted in the mining district.

It is further stated in the "*Lake Superior News*," that "the receipts, since the transfer of the charge of these lands from the War Department to the Treasury Department, exceed, by a very considerable amount, every expense attendant upon their management and the collection of rents; and it is computed that, with what will be raised by the 30th September, 1848, at the rates of this year, the rents will amount to some \$25,000 over and above expenses. There are many companies who have commenced mining, with good shows of mineral and prospects of success, who are not as yet sufficiently advanced to make returns; and a great many who were doing well have turned their forces to building, opening of roads, clearing the land, and raising potatoes, until they could erect smelting-works, four of which are going up, and will be in operation the ensuing summer—one on the Ontonagon, one at Eagle River, one at Dead River, and one at Isle Royal. It should also be mentioned that explorations have been carried on extensively, with the anticipation of taking up these lands when they come into market, and that the discoveries surpass all previous anticipations. Gen. E. J. Roberts, assistant agent United States mineral lands, will, we understand, make his headquarters for the winter at Eagle River, the Ontonagon, or Fort Wilkins, where the business of the agency will be transacted until the re-opening of navigation."

MANUFACTURE OF SHELL CAMEOS.

Mr. Gray, the author, as we learn from the London *Athenaeum*, commenced by stating that the ancients formed cameos by engraving figures in low relief on different kinds of siliceous stones, and generally selected for that purpose those which had layers of different colors; so that the figures, or different parts of the same figures, were of divers colors. Such cameos are now made in Southern Europe and in France—where this art has lately been attempted to be revived; but the hardness of the materials requires so much labor, that they are too expensive to come into general use. Numerous attempts have been made to substitute various materials, such as porcelain and glass, for the ancient cameos; but their great inferiority has caused them to be neglected. The best, and now most used substitutes, are shells; several kinds of which afford the necessary difference of color, and are at the same time soft enough to be worked with ease, and hard enough to resist wear. The shells used, are those of the Flesh-eating Univalve—which are peculiar as being formed of three layers of calcareous matter, each layer being a perpendicular lamina placed side by side. The cameo cutter selects those shells which have the three layers composed of different colors, as they afford him the means of relieving his work; but the kinds now employed, and which experience has taught him are best for his purpose, are the Bull's Mouth, the Black Helmet, the Horned Helmet, and the Queen Conch. The two first are the best shells. After detailing the peculiarities of these shells, the writer proceeded to give an account of the progress of the art, which was confined to Rome for upwards of forty years, and to Italy until the last twenty years, at which period an Italian commenced the making of them in Paris; and now about 300 persons are employed in this branch of trade in that city. The number of shells used annually, thirty years ago,

was about 300; the whole of which were sent from England—the value of each shell, in Rome, being 30s. To show the increase of this trade, the number of shells used in France, last year, was nearly as follows:—

	Shells.	Average price.	Value.
Bull's Mouth.....	80,000	1s. 8d.	£6,400
Black Helmet.....	8,000	5 0	1,800
Horned Helmet.....	500	2 6	60
Queen Conch.....	12,000	1 2½	700
Total.....	100,500		£8,960

The average value of the large cameos made in Paris is about 6 fr. each—giving a sterling value of £32,000; and the value of the small cameos is about £8,000—giving a total value of the cameos produced in Paris, for the last year, of £40,000; while, in England, not more than six persons are employed in this trade.—*Proc. Soc. Arts.*

THE MANUFACTURE OF A NEW COLORING MATTER,

TO BE USED IN THE DYEING OR IN THE PRINTING OF WOOLLEN, COTTON, SILK, AND OTHER FABRICS.

This invention, made by C. A. Kurtz, of Manchester, (England,) as we learn from the "Chemical Gazette," of Sept. 16th, 1847, consists in the manufacture of a "substantive coloring matter," suitable for dyeing or printing a bronze or brown color, by subjecting aloes or an extract of logwood to the action of nitric or nitrous acid.

The mode of preparing the coloring matter from aloes is as follows:—Into a boiler or vessel, capable of holding about 100 gallons, the patentee puts 10 gallons of water to 132 lbs. of aloes, and heats the same until the aloes are dissolved; he then adds 80 lbs. of nitric or nitrous acid, in small portions at a time, to prevent the disengagement of such a quantity of nitrous gas as would throw part of the contents out of the boiler. When the whole of the acid has been introduced, and the disengagement of gas has ceased, 10 lbs. of liquid caustic soda or potash of commerce of about 30° are added, to neutralize any undecomposed acid remaining in the mixture, and to facilitate the use of the mixture in dyeing and printing. If the coloring matter is required to be in a dry state, the mixture may be incorporated with 100 lbs. of China clay, and dried in stoves, or by means of a current of air. In preparing the coloring matter from extract of logwood, the materials are used in the manner and proportions above described; the only difference being, that the extract of logwood is substituted for the aloes.

The coloring matter is used in dyeing, by dissolving a sufficient quantity in water, according to the shade required, and adding as much hydrochloric acid or tartar of commerce as will neutralize the alkali contained in the mixture, and leave the dye-bath slightly acidulated. The article to be dyed is introduced into the bath, which is kept boiling until the desired shade is obtained.

When the coloring matter is to be used in printing, a sufficient quantity is to be dissolved in water, according to the shade required to be produced; this solution is to be thickened with gum, or other common thickening agent; and hydrochloric acid or tartar of commerce, or any other suitable supersalt is to be added thereto, for the purpose before mentioned. After the fabrics have been printed with the coloring matter, they should be subjected to the ordinary process of steaming, to fix the color. Sealed Jan. 27, 1847.

PURIFICATION OF MERCURY FROM TIN.

The "Archiv. der Pharmacy," publishes the following method for the purification of mercury from tin. It is understood to be from H. Wackenroder.

"When crude muriatic acid containing a tolerable quantity of sulphurous acid is placed in contact with tin foil at the ordinary temperature, a violent reaction takes place with disengagement of hydrogen, and the sulphurous acid is decomposed. This circumstance may be turned to account in purifying mercury from tin. The mercury, containing tin, in quantities from three to four pounds, is mixed with crude muriatic acid, and exposed to the sun for several days, now and then agitating. A considerable quantity of sulphuretted hydrogen and hydrogen escape; and when the acid is now digested with the metal for some hours at 176°, the latter is entirely freed from tin. Muriatic acid, which has been mixed with one-eighth of liquid sulphurous acid, may also be employed to test commercial mercury for the presence of tin. On mixing the mercury and acid together, not a trace of sulphuretted hydrogen should be disengaged, and a slip of paper moistened with acetate of lead not be blackened even when the mixture is gently heated."

IMPROVED METHOD OF MANUFACTURING WHITE LEAD.

A patent has been granted to Charles Reinhold Lothman, Craven-street, Strand, for improvements in the manufacture of white lead, an article of considerable commercial importance. It consists in manufacturing white lead by submitting lead to the action of the acids, or vapors produced in the operation of brewing, or in the manner hereafter described.

"The process of manufacturing white lead, according to this invention, is carried on in an air-tight chamber, 6 feet high, 6 feet long, and 6 feet broad, having a flue at the lower part of it, connected with a furnace, by means of which the chamber can be heated to from 72° to 96° F. All round the chamber, at distances of about 5 feet apart, wooden posts are fixed, reaching from the bottom of the chamber to the top; to these posts a number of pieces of wood are fastened, at distances of about 1 foot apart, for the purpose of supporting other pieces of wood, 1 inch square, and extending from one end of the chamber to the other; on these last mentioned pieces, 5 cwt. of lead are hung in sheets, 2 feet long, 1 foot wide, and 1-16 of an inch thick. On the floor of the chamber is placed a tub, containing 8 pecks of malt, 2 lbs. of sugar, 6 pints of yeast, and 12 gallons of water, and the interior of the chamber is heated to the degree above mentioned; this temperature is to be maintained until the lead is converted into white lead. The mixture in the chamber undergoes fermentation; and after the vinous fermentation has ceased, and the liquid becomes mouldy, it is drawn off into vessels, in which it is mixed with two gallons of vinegar, and heated by steam; it is then gradually introduced through a pipe into the chamber. After the mixture is taken out, a fresh supply is to be introduced. The lead is by these means converted into white lead."

The patentee states, that he claims the use of the acids or vapors produced in the process of brewing, or the acids or vapors evolved in breweries, by introducing them into the chamber through a pipe fastened to the vats or vessels in which they are generated. He also claims the use of atmospheric air, by pumping it into the said chamber by an air-pump.—Sealed Jan. 7, 1847."

IRON FOUNDRY OF SERAING.

This immense establishment, the most important in Belgium, was founded by the late John Cockerill, but has since been very greatly extended by its present proprietor, Mr. Pastor. It now occupies a superficial extent of 2,170 yards, has six blast furnaces, five of which are employed in smelting, and the remaining one, in preparing the metal for superior castings; the produce of the five, is about 62*1*/₂ tons of pig iron in twenty-four hours, and the latter one, 9 tons of fine casting metal in the same period. The quantity of material required to supply the furnaces, in twelve months, is 53,572 tons of iron ore, 35,822 tons of coke, and 14,723 tons of limestone, or other flux; the tilt-hammers weigh 4*1*/₂ tons each. Eleven steam-engines are employed, of an aggregate power of five hundred horses: the principal forge produces 85 tons of wrought iron monthly. The workshop for the manufacture of locomotive engines, extends over a space of 1,250 square yards, traversed down the centre by two parallel lines of railway, and the lathes for turning the various delicate parts, are of the most gigantic description. To form some idea of the extent of this establishment, the reader must bear in mind that there are upwards of 5,200 men constantly employed day and night. In addition to the iron furnaces, there are 14 smaller ones for copper, brass, steel, etc. The produce of the rough metal, before manufacture, cannot be much less than £1,000,000 sterling.

ON THE PURIFICATION OF ZINC.

We find in the "*Journal de Chim. Med.*," the following method of purifying zinc, by M. Smedt, a distinguished chemist:—

"Commercial zinc is dissolved in nitric acid; tin and antimony remain undissolved, the arsenic is converted into arsenic acid, and the zinc, cadmium, and iron dissolve. Excess of carbonate of ammonia is added to the filtered solution, which precipitates the iron and the cadmium; the filtered liquid is evaporated to dryness, the residue heated to redness, dissolved in nitric acid, and the solution precipitated with carbonate of potash, which leaves the arsenic acid in the liquid; the precipitate is well washed, ignited, and then reduced at a red heat with hydrogen."

MERCANTILE MISCELLANIES.

WHAT SHOULD BE THE CHARACTER OF THE MERCHANT.

In the November number of the Merchants' Magazine, we reviewed at length the admirable address of Judge JAMES HALL, before the "Young Mens' Mercantile Library Association of Cincinnati," in celebration of its eleventh anniversary, in 1846; embodying, in that article, all that relates to the topic selected by the author for the occasion, viz: The Dignity and Usefulness of Commerce, as Illustrated by the History of the Commercial Greatness and Growth of the West. At the close of the address, Judge Hall touches upon a very important point, and one of paramount importance to the merchant. It presents itself in the form of a question, thus: "What should be the character of those who act so important a part in the business of the country, who control its resources, direct its energies, and, in a great degree, form the moral standard which regulates the transactions of the whole people?" The mercantile mind of our people is sufficiently keen. But enough: the learned judge answers the question briefly, but pertinently, as follows:—

The pursuit of wealth, attracting as it does intellects of every grade, includes among its votaries many of the most aspiring and most capable minds; and gives to them that constant and healthy exercise, which is calculated to sharpen the faculties; and, if united with reading and reflection, produces a high degree of refinement. The merchant should cultivate his mind, and acquire knowledge as an element of power. Dealing in the products of various climes, and of all the arts, and engaged in an intercourse, personally or by correspondents, which extends to all the marts of traffic throughout the world, he should be well acquainted with the geography of the globe, and with the productions, resources, habits, financial systems, and commercial usages of all nations. He should know thoroughly the composition and history, the mode of production, cost, and all other incidents, connected with every article in which he deals; and should be versed especially in the moneys and measures, the exchanges, the commercial laws and regulations, of the various places to which his business relations extend. This much we insist upon, as actually necessary to the respectability of the mercantile character, and to enable the merchant to wield his capital to advantage. But the intelligent merchant should aspire to something more than this. His position in society demands that he should place himself upon an equality with the most cultivated of his fellow-citizens. As a class, the merchants are the most wealthy men of our country. In social intercourse they mingle with the most refined, with those who are highest in intellectual standing, and official position. There is no place in society, no post in the government, from which the merchant is excluded. On the contrary, his command of money, and the facilities afforded by his relations of business, place him in a prominent position, give him the control of the various commercial and moneyed institutions, and render him the fit and active director and agent in the whole circle of public charities, and in the numberless endowments for literary and liberal purposes. Having thus opened to him a wide sphere of usefulness, he should enter upon it with a consciousness of its dignity and importance, and qualify himself for the discharge of its various duties, by an assiduous and a liberal cultivation of his mind and morals.

The merchant should be a patron of the arts, a promoter of education, a friend to literature and science, an active agent in all public improvements; because his habits of business, his wealth, his connection with moneyed institutions, and with fiscal concerns, enable him to render efficient aid to enterprises of patriotism and benevolence. He should be forward in every good word and work, also, as a means of blunting that vulgar prejudice, which supposes that the men who possess or control wealth, enjoy exclusive privileges; and should show a willingness to pay liberally for the advantages of his position, whether real or imaginary, by using those advantages freely for the public good.

There is another point, in regard to the commercial character, of great delicacy, but which I do not feel at liberty to pass untouched, as it is most essential to the honor and the prosperity of the mercantile class, as well as of the community to which they belong. The most precious possession of the merchant is his *credit*. And here allow me to draw a distinction: the credit of the merchant does not consist simply in his wealth, or in his ability to borrow money by means of his connections, or of the securities he may be able to offer. It is a gross fallacy to suppose that what is termed an "undoubted standing," re-

quires nothing for its support but the possession of *facilities* for raising money. The credit of a merchant depends mainly on his character for integrity, capacity, and industry. The true merchant is a man whose morality is as inflexible as the rules of arithmetic: his honesty is as invariable as the result of a correct balance-sheet. He should be not only honest, but strictly honorable, so that the confidence reposed in him should be unlimited. Such a man is trusted, not merely on account of his wealth, but in consideration of his personal character.

The commercial virtues are so essential to the well being of society, that their cultivation should be an object of sedulous care to the whole mercantile body, who should exercise a conservative influence by frowning upon every infraction of the laws of fair trading. Punctuality should be insisted upon as an indispensable requisite, and no man should be trusted or tolerated, who would forfeit his word or violate his engagements. Society has a right to demand of all its members the observance of good faith, and it is only by insisting on this right that a wholesome public opinion is established.

Especially should the merchants of a city like ours, endeavor to establish a high tone of commercial character. They should set up a standard of strict and elevated morality, which every regular dealer and fair merchant would acknowledge to be just, and to which all should be required to adhere. They should patronize those virtues which adorn the individual character, which promote success in business, while they render its transaction safe and agreeable, and which are as beneficial as they are honorable to the community in which they flourish—industry, honesty, temperance, and prudent economy; while, by inflexible rules, and strict observances, they should discountenance fraud, deception, trickery, and bad faith.

When we speak of the rapid advancement of our country to its present high state of prosperity, we are easily led by national vanity into the employment of high sounding words which do not always lead us to satisfactory conclusions. Patriotism, public spirit, benevolence—liberty, education, the freedom of the press, our liberal institutions, the benign and pacific policy of our government, are referred to as causes of our national growth and aggrandizement. I shall not dispute the happy influence of all these principles. But there is one element in the national character, one principle of action animating the entire mass of our people, which is greater than any other; nay, I will be bold enough to assert, more powerful than all others united. Whether it be called avarice, or the love of money, or the desire of gain, or the lust of wealth, or whether it be softened to the ear under the more guarded terms, prudence, natural affection, diligence in business, or the conscientious improvement of time and talents—it is still *money-making* which constitutes the great business of the majority of our people; it is the use of money which controls and regulates everything.

Whether the propensity for money-getting is beneficial or otherwise, depends upon circumstances. Industry is an admirable quality; its exercise is directly useful to the public as well as to individual interests, and it is accompanied by temperance, prudence, morality, and other virtues. But the desire of wealth, for its own sake, is far from being a virtue. Where money is greedily sought, without regard to the means of acquisition, and without liberality in its expenditure, the passion which directs its pursuit is base and sordid. The miser is a wretched man, a worthless citizen, a dishonor to the dignity of human nature.

I am happy to believe that the acquisition of wealth does not necessarily, nor as I hope usually, blunt the sensibilities, nor destroy the manliness of a generous character—that it is not always a selfish and mercenary occupation. If money be sought with moderation, by honorable means, and with a due regard to the public good, no employment affords exercise to higher or nobler powers of mind and heart. And such should be the character of the merchant. He should guard his heart against the seductive influence of money; he should carefully shield his mind against the narrow precepts of avarice. Money should be regarded as the agent and representative of the good it may be made to perform—it should be sought as an instrument of self-defence against the evils of poverty; of parental love, enabling us to provide for those dependent on us; of public spirit, in affording the means of promoting the public good.

THE TEMPTATIONS OF THE AMERICAN MERCHANT.

In a former number of the Merchants' Magazine we gave an extract from Mr. PARKER'S "*Sermon of Merchants*," touching the position of the Merchant. From this position, he proceeds to point out certain peculiar temptations, as follows:—

One temptation is to an extravagant desire of Wealth. They see that money is Power, the most condensed and flexible form thereof. It is always ready; it will turn any way.

They see that it gives advantages to their children which nothing else will give. The poor man's son, however well born, struggling for a superior education, obtains his culture at a monstrous cost; with the sacrifice of pleasure, comfort, the joys of youth, often of eyesight and health. He must do two men's work at once—learn and teach at the same time. He learns all by his Soul, nothing from his circumstances. If he have not an iron body as well as an iron head, he dies in that experiment of the cross. The land is full of poor men who have attained a superior culture, but carry a crippled body through all their life. The rich man's son needs not that terrible trial. He learns from his circumstances, not his Soul. The air about him contains a diffused element of thought. He learns without knowing it. Colleges open their doors; accomplished teachers stand ready; Science and Art, Music and Literature, come at the rich man's call. All the outward means of educating, refining, elevating a child, are to be had for money, and for money alone.

Then, too, Wealth gives men a social position, which nothing else, save the rarest genius, can obtain, and which that in the majority of cases is sure not to get. Many men prize this social rank above everything else, even above Justice and a life unstained.

Since it thus gives Power, Culture for one's children, and a distinguished Social Position, Rank amongst men, for the man and his child after him, there is a temptation to regard money as the great object of life, not a means but an End; the thing a man is to get even at the risk of getting nothing else. It "answereth all things." Here and there you find a man who has got nothing else. Men say of such an one, "He is worth a million!" There is a terrible sarcasm in common speech, which all do not see. He is "worth a million," and that is all; not *worth* Truth, Goodness, Piety; not *worth* a Man. However, I must say, I cannot think there are many such amongst us. Most men, I am told, have mainly gained wealth by skill, foresight, industry, economy, by honorable pains-taking, not by trick. Still there is a temptation to count wealth the object of life—the thing to be had if they have nothing else.

The next temptation is to think any means justifiable which lead to that end,—the temptation to fraud, deceit, to lying in its various forms, active and passive; the temptation to abuse the power of this natural Strength, or acquired Position, to tyrannize over the weak, to get and not give an equivalent for what they get. If a man gets from the world more than he gives an equivalent for, to that extent he is a beggar, and gets charity, or a thief, and steals; at any rate, the world is so much the poorer for him. The temptation to fraud of this sort, in some of its many forms, is very great. I do not believe that all trade must be gambling or trickery; the Merchant a knave or a gambler. I know some men say so; but I do not believe it. I know it is not so now; all actual trade, and profitable, too, is not knavery. I know some become rich by deceit. I cannot but think these are the exceptions; that the most successful have had the average honesty and benevolence, with more than the average industry, foresight, prudence, and skill. A man foresees future wants of his fellows, and provides for them; sees new resources hitherto undeveloped, anticipates new habits and wants; turns wood, stone, iron, coal, rivers and mountains to human use, and honestly earns what he takes. I am told the Merchants of this place rank high as men of integrity and honor, above mean cunning, but enterprising, industrious and far-sighted. Still, I must admit the temptation of fraud is a great one; that it is often yielded to. Few go to a great extreme of deceit—they are known and exposed; but many to a considerable degree. He that maketh haste to be rich is seldom innocent. Young men say it is hard to be honest, to do by others as you would wish them to do by you. I know it need not be so. Would not a reputation for uprightness and truth be a good capital for any man, old or young?

This class owns the machinery of society, in great measure,—the Ships, Factories, Houses, Shops, Water-Privileges, and the like. This brings into their employment large masses of working-men, with no capital but Muscles or Skill. The law leaves the employed at the employer's mercy. Perhaps this is unavoidable. One wishes to sell his work dear, the other to get it cheap as he can. It seems to me no law can regulate this matter, only Conscience, Reason, the Christianity of the two parties. One class is strong, the other weak. In all encounters of these two, on the field of battle, or in the market-place, we know the result; the weaker is driven to the wall. When the earthen and iron vessel strike together, we know beforehand which will go to pieces. The weaker class can seldom tell their tale, so their story gets often suppressed in the world's literature, and told only in outbreaks and revolutions. Still, the bold men who wrote the Bible, Old Testament and New, have told truths on this theme which others dared not tell—terrible words, which it will take ages of Christianity to expunge from the world's memory.

There is a strong temptation to use one's power of Nature or Position, to the disadvantage of the Weak. This may be done consciously or unconsciously. There are examples enough of both. Here the Merchant deals in the labor of men. This is a legitimate

article of traffic, and dealing in it is quite indispensable in the present condition of affairs. In the Southern States, the Merchant, whether Producer, Manufacturer, or Trader, owns men and deals in their labor, or their bodies. He uses their labor, giving them just enough of the result of that labor to keep their bodies in the most profitable working state. * *

* * * Here it is possible to do the same thing: I mean, it is possible to employ men and give them just enough of the result of their labor to keep up a miserable life, and yourself take all the rest of the result of that labor. This may be done consciously or otherwise, but legally, without violence, and without owning the person. This is not Slavery, though only one remove from it. This is the Tyranny of the Strong over the Weak; the Feudalism of Money; stealing man's work, and not his person. The Merchants, as a class, are exposed to this very temptation. Sometimes it is yielded to. Let me mention some extreme cases; one from abroad, one near at home. In Belgium the average wages of *men* in manufactures are less than twenty-seven cents a day. The most skilful women in that calling can only earn twenty cents a day, and many very much less. In that country almost every seventh man receives assistance from the public; the mortality of that class, in some of the cities, is 10 per cent a year! Perhaps that is the worst case which you can find on a large scale even in Europe. How much better off are many women in Boston, who gain their bread by the needle? yes, a large class of women in all our great cities? The Ministers of the Poor can answer that; your Police can tell of the direful crime to which Necessity sometimes drives women whom honest labor cannot feed!

I know it will be said, buy in the cheapest market and sell in the dearest; get work at the lowest wages. Still there is another view of the case, and I am speaking to men whose professed religion declares that men are Brothers, and demands that the Strong help the Weak. Oppression of this sort is one fertile source of Pauperism and Crime. How much there is of it I know not, but I think men seldom cry unless they are hurt. When men are gathered together in large masses, as in the manufacturing towns, if there is any oppression of this sort, it is sure to get told of, especially in New England. But, when a small number is employed, and they isolated from one another, the case is much harder. Perhaps no class of laborers in New England is worse treated than the hired help of small proprietors.

Then, too, there is a temptation to abuse their political power to the injury of the nation; to make laws which seem good for themselves, but are baneful to the people; to control the Churches, so that they shall not dare rebuke the actual Sins of the Nation, or the Sins of Trade, and so the churches be made apologizers for lowness, practising infidelity as their sacrament, but in the name of Christ and God. The ruling power in England once published a volume of Sermons, as well as a Book of Prayers, which the clergy were commanded to preach. What sort of a gospel got recommended therein, you may easily guess.

A PRUSSIAN LADY NAVIGATING A SHIP.

In Prussia, as well as in Holland, captains in the merchant service, of small property, which generally consists of a little vessel commanded by themselves, make the ship their home, and live there constantly, with their families, who accompany their head in all his voyages. One of the Prussian captains, M. Hesser, was recently navigating his galliot *Minerva*, from Konigsberg to Riga. On board his vessel was his young wife, with three small children, and his crew, composed of a mate and four sailors. In the Baltic, during a violent storm in the night, while Hesser and his men were on deck, the galliot was run into by the English merchant ship *Star*, Capt. Robson. The shock of the two vessels was so great that Capt. Hesser and one of his sailors were thrown against the prow of the *Star*, to which they clung, and from whence they crawled on board that ship.

The three other sailors fell into the sea and disappeared immediately, so that there remained on the galliot only Mrs. Hesser, her three children and the mate—the latter, unfortunately, during the accident, had met with a severe fall, by which he was so seriously wounded that he was unable to work. In this state of things Mrs. Hesser had the courage to take upon herself the charge of navigating the ship. By turns, captain, mate and sailor, using the little nautical knowledge she had been able to acquire in her former voyages, this intrepid young woman succeeded, by incessant labor, for eighteen hours, in gaining, with her vessel, the port of Riga. The native and foreign sailors at Riga, having learned the courageous conduct of Mrs. Hesser, caused a medal to be struck in her honor, and the corporation of seamen at Riga presented her with 1,000 effective rubles—(4,000 francs.) Capt. Hesser and his sailors, who were saved on board the *Star*, were carried by that vessel to Rostock, in the Grand Duchy of Mecklenburgh, whence they arrived safe and sound at Riga.

THE BOOK TRADE.

1.—*The Seasons.* By JAMES THOMPSON. With Engraved Illustrations, by E. BOOKHOUT, from Designs drawn on Wood, by JOHN BELL, Sculptor, C. W. COPE, THOMAS CRESWICK, etc., etc.; and with the Life of the Author, by PATRICK MURDOCH, D. D., F. R. S. Edited by BOLTON CORNEY, Esq. pp. 320. New York: Harper & Brothers.

This is certainly one of the most magnificent and costly works of art ever reproduced in this country—every way worthy of a poem uniting, in an eminent degree, just sentiments, vivid description, and melody of verse. It is so well known, and so highly appreciated by every cultivated mind, that it is scarcely necessary for us to endorse the opinion of Mr. Corney, who considers it unsurpassed in felicity of theme, in ethical tendency, in the pathos of its episode, in the truth, the richness, and the variety of its details of scenery. The mutable circumstances of taste or fashion can never diminish its value; “for it is the perpetual calendar of nature, which may be read with profit and pleasure in each revolving year.” The illustrations, seventy in number, the designs being drawn on wood by the eminent artists who furnished them, have been engraved with the utmost attention to similitude, so that we have, in effect, the very drawings. We can scarcely conceive of a more beautiful presentation-book, for the approaching “season,” and, indeed, for all “seasons.”

2.—*The Life of Henry the Fourth, King of France and Navarre.* By G. P. R. JAMES, Esq., author of the “History of Charlemagne,” “Chivalry and the Crusades,” etc., etc. 2 vols., 12mo., pp. 931. New York: Harper & Brothers.

That part of this monarch’s life with which the world is most fully acquainted, is the portion which succeeded his accession to the throne. Occupying a prominent position in Europe, as Mr. James correctly remarks, in the introduction, affecting the interests and even the fate of neighboring States, alternately the object of anxiety, of dread, and of expectation to other rulers, his actions were there observed and recorded, and his failings and virtues were equally open to the censure or admiration of mankind. The preceding period is more obscure, and accordingly we find the author endeavoring, in the present work, to bring more light into this obscure portion of his history; and it would seem, that access to sources of information hitherto unattainable, has enabled him to effect that object in a most satisfactory manner. The work is issued in a style highly creditable to the liberality and enterprise of the publishers.

3.—*A Text-Book on Natural Philosophy. For the Use of Schools and Colleges. Containing the most Recent Discoveries and Facts, Compiled from the Best Authorities.* By JOHN WILLIAM DRAPER, M. D., Professor of Chemistry in the University of New York, and formerly Professor of Natural Philosophy and Chemistry in Hampden Sydney College, Virginia. With nearly Four Hundred Illustrations. 12mo., pp. 381. New York: Harper & Brothers.

Four editions of Dr. Draper’s “Text-Book of Chemistry,” were published in less than a year. The plan of this work is essentially the same as that on chemistry. It gives an abstract of the leading points of each lecture—three or four pages containing the matter gone over in the class-room in the course of an hour. The object, marked out by the author, was to present to the student a clear view of the great facts of physical science, and to avoid perplexing his mind with a multiplicity of details. This he has well done.

4.—*The Boys’ Autumn Book.* New York: Harper & Brothers’ “Boys’ Own Library.”

This little volume, one of an amusing and instructive series of books for boys, is descriptive of the season, scenery, rural life, and country amusements. The author is Thomas Miller, well known in England as the “Basket-Maker,” and as the author of “Beauties of the Country,” “Rural Sketches,” etc.

- 5.—*The Poetical Works of Fitz-Greene Halleck. Now First Collected. Illustrated with Steel Engravings, from Drawings by American Artists.* New York: D. Appleton & Co.

The only cause of regret, in regard to the author of this volume, is, that his poems are so comparatively few in number. That a poet of so much power and inspiration, should not have written a "few more of the same sort," is a problem which we cannot solve. Mr. Halleck, it would seem, was quite unambitious of fame, as we believe this is the first collected edition of his poems that has been published with his consent. The peculiar merits of his poetical efforts are too well known to require description at this late day. Almost every poem in the present volume is as familiar to the American reader as the commonest "household words." The public will, we trust, duly appreciate the enterprise of the publishers for producing, in so magnificent a style, the gems—for every poem is a gem—of one of cultivated nature's best poets. The time of its appearance is opportune; and we venture to predict that it will find more purchasers, than any of the numerous annuals designed for the gift-books of the season. Its finished illustrations—its fine, white, and substantial paper—bold and beautiful type—and its chastely elegant binding, place it in competition with the best English annuals; and all who have a particle of patriotism will not hesitate in the choice of a suitable book "for my lady-love," to grace her boudoir, or the "centre-table" of the most splendid residence in the country.

- 6.—*Life of Major General Zachary Taylor; with Notices of the War in New Mexico, California, and in South Mexico; and Biographical Sketches of Officers who have Distinguished themselves in the War with Mexico.* By JOHN FROST, LL. D. 18mo., pp. 345. New York: D. Appleton & Co. Philadelphia: G. S. Appleton.

We have no sympathy for the existing war with Mexico, or any war. Still, we cannot help admiring the courage and heroism exhibited by the officers and men of the American army. Would to God, that these qualities were directed to nobler purposes; and that the heroic age—the age of American chivalry—had passed away. But this is not the place to moralize. The present volume furnishes a variety of information touching the events of the several battles and sieges, fortified by the official despatches, besides biographical sketches and anecdotes of the men who have distinguished themselves in the bloody conflicts which have marked the progress of the war. Mr. Frost has made up an interesting, and, we presume, given, as far as it was in his power, a faithful narrative of all the more important circumstances and events of the war.

- 7.—*Artiste—Life or Sketches of American Painters.* By HENRY T. TUCKERMAN, author of "Thoughts of the Poets," etc. 12mo., pp. 237. New York: D. Appleton & Co. Philadelphia: G. S. Appleton.

The volume before us embraces sketches of twenty-three American painters, viz: West, Copley, Stuart, Trumbull, Allston, Malbone, Vanderlyn, Morse, Durand, W. E. West, Sully, Inman, Cole, Leslie, Weir, Chapman, Edmonds, Freeman, Leutz, Huntington, Deas, Flagg, and G. L. Brown. Mr. Tuckerman is at home with poets and painters. His soul was formed to understand and appreciate, with nice discrimination, their beauties and their defects, although his amiable spirit would incline him to look at the former, rather than the latter. Mr. Tuckerman's sketches, we should judge, were faithful portraits of the genius of the men; and his criticisms of art display deep insight, and a thorough knowledge of its constituent elements. The chaste, elegant, and scholarly style, in which they are written, imparts a charm, even, to the just views which characterize almost every page and paragraph of this delightful volume.

- 8.—*The Diseases of Woman; their Causes and Cure Familiarly Explained. With Practical Hints for their Prevention, and for the Preservation of Female Health.* By Dr. F. HOLICK, M. D., Lecturer on Physiology and Female Diseases, etc. 18mo., pp. 294. New York: Burgess, Stringer & Co.

An excellent and popular treatise on the subject, which no intelligent married woman should fail to possess.

9.—*The Rose of Sharon; a Religious Souvenir for 1848.* Edited by MRS. EDGARTON MAYO. Boston: Abel Tompkins.

This is the ninth annual appearance of this beautiful gift-book. Those who were its early patrons, will be favorably impressed with the marked improvement of each successive issue. The illustrations in some of the early volumes, were execrable; but the progress in this respect has been truly remarkable. Indeed, the engravings of this volume worthily illustrate the noble thoughts and sentiments of a class of minds, deeply imbued with the liberal and philanthropic spirit of the age. It is a "religious souvenir," in the highest acceptance of the term. It inculcates the worship of the heart and the life; and, in "thoughts that breathe and words that burn," gives utterance to the doctrines of the Unity and Universal Brotherhood of the Race—doctrines, taught eighteen hundred, perhaps more, years ago, but scarcely comprehended even at this late day. The illustrations, nine in number, from paintings by eminent artists, with the exception of a vignette title-page, by O. Pelton, were all engraved by Sartain—an artist, whose merits are too well known and appreciated to require puffing. We give the titles of the illustrations, as follows: "Good Night," "The Land Storm," "Malice and Goodness," "Christ and Bartimaeus," "The Prisoner's Friend," and "The Queen of Flowers." Among the contributors, we notice the names of E. H. Chapin, Horace Greeley, Henry Bacon, J. G. Adams, Mrs. Mayo, the editress, and other ladies, who have earned a reputation for elegance of style and purity of thought. We have not space to notice particular articles; and, indeed, where all are so good, it would, perhaps, be considered invidious; and, therefore, we must reluctantly satisfy ourselves with speaking in these general terms of commendation. It is a gem of rare merit.

10.—*The Mayflower, for 1848.* Edited by MRS. E. OAKES SMITH, author of "The True Child," "Dandelion," "Moss Cup," etc. Boston: Saxon & Kelt.

We are glad to learn from Mrs. Smith, that the "Mayflower" is no longer a thing of doubt and uncertainty; and that it is likely to have a long and steady hold upon the affections of our people, commemorating, as it does, the ancient bark which first rode into the Massachusetts Bay, and linking the minds of the present men and women of our soil with their honored progenitors of 1620. The volume contains thirty-eight articles, embracing tales, essays, sketches, and poems, furnished, for the most part, by Mrs. Smith, Frances S. Osgood, Margaret Fuller, Anna C. Lynch, Charles F. Hoffman, H. T. Tuckerman, and some eight or ten other writers of merit. We notice among the prose essays, Mr. Hoffman's essay on the "Poetry of Trade," originally published in this Magazine. Of the nine illustrations, eight are by J. Sartain, and one, the vignette, designed by C. Billings, was engraved by an artist of considerable merit. The "Hard Word," and "How are You," both by Sartain, are capital; indeed, not one of the engravings in the volume fall below mediocrity. The frontispiece, "The Prophecy of the Flower," is, however, rather stiff. The subjects are all expressive and well chosen; and, on the whole, this annual is alike creditable to the enterprise of the publishers, the skill of the artists, and the genius of the contributors.

11.—*The Broad Pennant; or, A Cruise in the United States Flag-Ship of the Gulf Squadron, during the Mexican Difficulties; together with Sketches of the Mexican War, from the Commencement of Hostilities to the Capture of Mexico.* By the Rev. FITCH W. TAYLOR, A. M., U. S. Navy, author of the "Flag-Ship," "A Voyage Round the World," etc., etc. 12mo., pp. 415. New York: Leavitt, Trow & Co.

Although the opportunities of the navy of the United States to distinguish itself in the existing war with Mexico have been slight, the author of the present work has contrived to furnish a very interesting narrative of the cruise of the Cumberland; and his agreeable sketches and graphic descriptions of scenes in the gulf, will, we are persuaded, be read with interest. It is the most original work, bearing upon the events connected with our Mexican difficulties, that has yet been published.

12.—*Essays, Theological and Miscellaneous.* Reprinted from the Princeton Review. Second Series. Including the Contributions of the Late Rev. Albert B. Dod, D. D. 8vo. New York and London: Wiley & Putnam.

This volume, like that which preceded it a year ago, is entirely composed of selections from the Princeton Review, one of the ablest theological periodicals in the United States. Of the twenty-one elaborate essays, comprised in the collection, seven are from the pen of the late distinguished Professor Dod. They are the articles on Capital Punishment, Phrenology, the Vestiges of Creation, Analytical Geometry, and Oxford Architecture, together with the reviews of Mr. Finney and Dr. Beecher. These essays are considered the best extant testimonial to the genius and cultivation of their lamented author. Whatever difference of opinion may exist among theologians and scholars, as to the soundness of the views promulgated and enforced by the several contributors to the work, few, we imagine, will be disposed to dispute the learning and ability brought to bear upon every subject discussed.

13.—*Oregon Missions, and Travels over the Rocky Mountains, in 1845-6.* By Father P. J. DE SMET, of the Society of Jesus. 18mo., pp. 408. New York: E. Dunigan.

There is something really heroic and noble, in a missionary penetrating the distant solitudes of the Rocky Mountains, laboring with untiring devotion to convert the children of the forest to the Christian doctrine; and we must confess that Catholic patience and enterprise are in advance of Protestant proselytism. The contents of the present volume, from the pen of the devoted missionary of the Rocky Mountains, are fraught with extraordinary interest; and, aside from the Catholic interest of the work, the general reader will find, in the missionary's graphic descriptions of the manners and customs of the North American Indians, their traditions, their superstitions, etc., a freshness of coloring and an exactness of detail, that render them valuable not only to our own times, but to posterity. He travels, we quote from the preface of Dr. Pise, through these vast and unexplored deserts, not merely as a missionary filled with the zeal which characterized the apostles of the primitive society, but with the eye of a poet, and an imagination glowing with bright yet calm enthusiasm. Hence the exquisite descriptions of scenery, of incidents, of events—descriptions, which breathe the spirit of a mind imbued with the loftiest conceptions of nature, and chastened with the influence of religious faith. The beautiful illustrations are from the original drawings of Father Point, executed with the pen, in the midst of the privations and difficulties of his remote and arduous missions.

14.—*New Drawing Cards for Schools; Containing Elementary Studies, Cottages with Rocks, Trees, Fragments of Landscapes, Picturesque Buildings, Birds, Animals, Rustic Figures, and Finished Landscape.* Designed to Assist the Pupil in Writing, and to Furnish him with the Most Interesting and Useful Studies in Drawing. With Instructions for the Scholar, and Questions for the Use of the Teacher. The whole so Simplified, as to Enable any Teacher, without Previous Study, to Instruct his Pupils to Advantage. By BENJAMIN H. COE, Teacher of Drawing. New York: Wiley & Putnam.

The design of this series of drawing cards is succinctly defined in the title-page, which we quote entire. The great excellence of these cards will be duly appreciated by all who are familiar with the art.

15.—*North American Scenery, Nos. 6 and 7. From Original Drawings Taken on the Spot.* By E. WHITEFIELD. The Literary Department under the Superintendence of JOHN KEENE, Esq. New York: H. Long & Brothers.

The present numbers contain a view of the Smith House, the scene of the conference between Arnold and Andre, at Haverstraw, New York; the Beverley House, Arnold's head-quarters when in command of West Point; the monument of John Paulding, one of the captors of Andre, near Peekskill; a view of Harrisburgh, Pennsylvania, from the Southwest; falls of the Genesee, Rochester; Saratoga Lake; view in the backwoods of Ohio; and the residence of R. P. Parrot, Esq., Cold Spring, New York. The views are accompanied with appropriate letter-press descriptions.

- 16.—*A Life of General Zachary Taylor. Comprising a Narrative of Events, Connected with his Professional Career, Derived from Public Documents and Private Correspondence.* By J. REESE FRY. And Authentic Incidents of his Early Years. Materials, by ROBERT T. CONRAD. With an Original and Accurate Portrait, and Eleven Elegant Illustrations of the Battles, etc., etc., designed by DARLEY. 12mo., pp. —. Philadelphia: Grigg, Elliot & Co.

There have already been published some half a dozen different lives of "Old Rough and Ready," as General Taylor has been familiarly called. Most of them are mere catchpenny affairs. A passing glance, however, convinces us that such is not the fact in regard to the present work. Mr. Conrad visited Kentucky, and collected, from authentic sources, full information of the family and of the early life of General Taylor, which Mr. Fry has here embodied with apparent fidelity—rendering it more complete, not only in this respect, but also as regards his services in the Black Hawk war. On the whole, we are satisfied that the present volume furnishes the most correct and comprehensive life yet published.

- 17.—*Heredity Descent; Its Laws and Facts Applied to Human Improvement.* By O. S. FOWLER, Editor of the "American Phrenological Journal," "Like Begets Like," "Each After Its Kind." 12mo., pp. 288. New York: Fowler & Wells.

Of the general soundness of the principles advanced in this volume, which are supported by an array of facts altogether incontrovertible, we do not entertain a doubt. Mr. Fowler clearly shows, "that the physical and mental capabilities of mankind are *innate*, not created by education; and have a constitutional character inherited from parents, instead of being a blank in which education and circumstances write all they contain." The work, as the author informs us, has been "penned to aid prospective parents in making choice of such partners, as shall secure a healthy, talented, and virtuous progeny, by expounding, in the light of classified facts, those laws which govern this important department of nature." Guided by the lights of phrenological science, which Mr. Fowler has studied and practised for nearly a quarter of a century, he has, we feel sure, evolved forms of truth, of vast importance in the development and progress of the race. We, therefore, earnestly commend the present work to every earnest seeker of truth—to every one who would advance the highest interests of humanity.

- 18.—*Poetry of Life.* By WILLIAM B. TAPPAN. 18mo., pp. 304. Boston: Charles H. Pierce.

This is the third volume of a series, embracing Mr. Tappan's revised poems; of which, "Poetry of the Heart," and "Sacred and Miscellaneous Poems," are the first and second. The religious sentiment is the prominent feature of this collection, and, indeed, of all the productions of the author; and, perhaps, no subject affords a better theme for the expression of a poetical enthusiasm. The last poem in the volume, entitled "Union—Labor—Prayer," gives utterance to sentiments in keeping with the progressive spirit of the day. The volume is very beautifully printed, and bound after the manner of the annuals—designed, we suppose, for a gift-book, and far more appropriate for that purpose than many of greater pretension.

- 19.—*Mercy to Babes; a Plea for the Christian Baptism of Infants, Addressed to those who Doubt, and those who Deny the Validity of that Practice, upon the Grounds of the Doctrine of Baptism and the Eternal Sense of Holy Writ, and of the Domestic, Social, and Religious Nature of Man.* By WILLIAM ADAMS, S. T. P., Presbyter of the Protestant Episcopal Church, in the Diocese of Wisconsin. pp. 216. New York: Stanard & Swords.

The writer is opposed to controversy, believing it to be, in the majority of cases, rather a matter of personal conflict between two minds for victory, than a discussion of the truth. Baptism and the Lord's Supper are institutions of the Christian church, beautiful and edifying to many; but the Quaker, or Friend, who rejects them both, is equally as conscientious, and perhaps as good a Christian.

20.—*The Legal Rights, Liabilities, and Duties of Women; with an Introductory History of their Legal Condition in the Hebrew, Roman, and Feudal Civil Systems. Including the Law of Marriage and Divorce; the Social Relations of Husband and Wife, Parent and Child, or Guardian and Ward, and of Employer and Employed.* By EDWARD D. MANSFIELD, A. M., late Professor in Cincinnati College, author of the "Political Grammar," and Corresponding Member of the National Institute. 12mo., pp. 369. Boston: John P. Jewett & Co.

The design of this really useful manual, is clearly and comprehensively expressed in the title-page as quoted above. The work consists of four parts. The first embraces a History of the Civil Condition of Woman in all Ages; the second is an Account of her Civil Rights, as a Citizen of the Republic; the third gives the General Principles of the Laws of Property; and the fourth contains the Rights, Liabilities, and Duties of Woman, in the Domestic Relations. These subjects are treated in a brief, but comprehensive manner; and the book has the merit of stating all the principles of law on those points at all important for women to know—of stating them in language so clear and plain, as to be easily understood—and of thus communicating to intelligent women, a mass of legal information concerning their persons, property, and happiness, which they cannot find in any one volume, nor find at all without resort to the expensive and ponderous volumes of a law library. The author has dedicated the volume to his mother, "teacher to the pupil, and suggester of the work," who has, to quote from the dedication, "all the rights of property, to either book or writer, which one who plants and cultivates a tree has, to the fruit upon its branches."

21.—*The Kingdom of Christ, and the Errors of Romanism.* By the Rev. RICHARD WHATELY, D. D., Archbishop of Dublin. 8vo., pp. 184. New York: Robert Carter.

Dr. Whately holds a high rank among the Protestant divines of the day, and is distinguished as the author of an admirable and popular treatise on rhetoric, which is pretty extensively in use in the literary seminaries of England and the United States. The present work, which is, of course, controversial in its character, contains two essays, the substance of some discourses, not, as he informs us, originally designed for the press, but which he was strongly urged to publish by several persons who heard them. It is well known, that Dr. Whately is opposed to the Oxford theological movement, and views with no favorable eye its tendency to Romanism. No one will be disposed, we presume, to question the ability displayed in the production of these essays, whatever they may think of the soundness of the author's arguments.

22.—*The Crater; or, Vulcan's Peak. A Tale of the Pacific.* By J. FENNIMORE COOPER, author of "Miles Wallingford," "The Pathfinder," etc. 2 vols., 12mo., pp. 461. New York: Burgess, Stringer & Co.

This last production of Cooper, is equal to many of the best of his earlier tales, and affords abundant proof of his power as a novelist. No one has contributed more to the reputation of the literature of America, abroad; and we regret that personal considerations should prevent any portion of the press from reviewing his works with candor and fairness.

23.—*The Snow Storm; a Christmas Story.* By MRS. GORE. 18mo., pp. 252. Boston: Charles H. Pierce.

This, like everything from the gifted lady, whose pen has ever been successfully wielded in affording entertainment and instruction to old and young, is not the least happy of her productions. The extremely neat typographical dress in which it appears, as beautiful as the annuals, renders it an appropriate gift-book for the approaching holidays.

24.—*The Life of David; a Series of Discourses.* By the Rev. C. M. FLEURY, Chaplain to the Molyneux, Peter-street, Dublin. 12mo., pp. 237. New York: Robert Carter.

This volume consists of a series of discourses preached by the author before the congregation of the Molyneux Asylum Chapel, Dublin. They embody a consecutive account of the life of David, as gleaned from the Scriptures, with such deductions and reflections interspersed, as occurred to the author in their preparation.

25.—*Documents Concerning the Life and Character of Emanuel Swedenborg.* Originally Collected by Dr. J. F. I. TAFEL, of Fubingen, Germany. Translated and Revised by Rev. J. H. SMITHSON, of Manchester, England. Re-edited and Enlarged by GEORGE BUSH, Professor of Hebrew in the New York University. New York: John Allen.

This work is in the main a reprint from an English work of the same title. It contains—we quote from Mr. Bush's preface—a large array of testimonies, from the most authentic and respectable sources, to the talents, attainments, and endowments of Emanuel Swedenborg, a name which is constantly looming up to view, as one of the most truly *venerable* which can be cited from the list of the world's worthies. The volume before us, contains a mass of documentary evidence concerning the life and character of the Swedish philosopher and seer, which Professor Bush thinks, cannot fail "to redeem the fame of an illustrious sage from the reproach which has hitherto so unjustly befallen it." We hope the work will be generally read, as it cannot fail of convincing every intelligent, fair-minded person, that Swedenborg was honest in his convictions, as well as one of the most extraordinarily gifted men of his time.

26.—*A Budget of Letters, or Things which I Saw Abroad.* 12mo., pp. 470. Boston: Wm. D. Ticknor & Co.

The letters comprised in this thick duodecimo volume, were written by a lady of Providence, while travelling in Europe, to friends at home; and the author, in compliance with the oft-repeated solicitations of those to whom they were addressed, finally consented to their publication. They will, no doubt, interest her friends, and indeed many others who favor them with their perusal. We are inclined to think, however, that, in a more condensed form, they would have secured a wider circle of readers.

27.—*Sketches of Life and Landscape.* By Rev. RALPH HOYT. New York: Spalding & Shepard.

There is a simplicity and directness in the style of Mr. Hoyt, that is sure of securing a large class of the admirers of the gentler forms of lyrical and pastoral poetry. The beautiful volume before us, contains ten of the author's poems, viz: Julia, Edward Bell, Snow, White Dragon, World Sale, Old, New, Rain, Shower, and Outlissa.

28.—*The American in Paris.* By JOHN SANDERSON. In Two Volumes. Third Edition. 12mo., pp. 458. Philadelphia: Carey & Hart.

The repeated calls for a new edition of these graceful and graphic sketches of Paris, is pretty good evidence of their popularity. The work is one of the few of its class, that will pay for a reprint. It may be considered a standard work.

29.—*The Rural Cemeteries of America; Illustrated in a Series of Picturesque and Monumental Views, in Highly Finished Line Engraving.* By JAMES SMILLIE, Esq. With Descriptive Notices by N. CLEAVELAND. New York: R. Martin.

The first six numbers of this work are devoted to Greenwood Cemetery, Brooklyn, and Nos. VII. and VIII., the two last published, contain a monumental and picturesque view of "Mount Auburn." We have no hesitation in pronouncing this by far the most perfect and beautiful illustrated work ever produced in the United States; and if not properly appreciated and patronized, it will evince a want of taste and liberality on the parts of those who profess to admire works of art.

30.—*Frederick Lee; or, the Christmas Present.* By MARY A. H. DODD. 18mo., pp. 162. Boston: Abel Tompkins.

The sentiments inculcated in this attractive and well-told tale, will commend themselves to every intelligent lover of truth and goodness. We cannot too highly commend books of this class.

31.—*The Harbinger.* Edited by PARKE GODWIN, GEORGE RIPLEY, C. A. DANA, WILLIAM H. CHANNING, and JOHN S. DWIGHT. New Series, November, 1847. Published at No. 9 Spruce-street, New York, and 111 Washington-street, Boston.

This publication partakes of the character both of a newspaper and a magazine; hence the unusual amount of editorial force which we find devoted to its management. A paper, thus sustained, ought to present a great variety of matters, interesting to all classes of readers. This, in fact, is the case. It is really one of the most ably conducted and the most readable weekly journals that comes to our office. It is distinguished by its careful and accurate abstract of the current news, its rich selections of miscellaneous reading, its piquant commentaries on the events of the day, and its frequently profound discussions of questions of social policy. It may sometimes be thought a little audacious in its criticisms of social abuses, but it is always candid and good-humored, and evidently speaks from sincere conviction. No paper surpasses it in the department of literary criticism. Its notices of books appear almost as independent as our own, though not always as mild in their tone. We know not why its advocacy of the doctrines of Association, which is conducted in quite a liberal and catholic spirit, should be any hindrance to its circulation among all who have a taste for good reading.

32.—*Engraving of the United States Senate Chamber.* New York: E. Anthony.

This splendid engraving, the largest of its class ever attempted in this country, represents, as far as it was practicable, the scene which took place on the occasion of Mr. Clay's retirement from the Senate in 1842. All the likenesses, ninety-seven in number, are accurate copies from Daguerreotype likenesses, and will be recognized by all who have seen any of the individuals represented as remarkably accurate. Nearly all the members of the Senate of 1842 are represented in their appropriate seats; besides a great number of our most prominent statesmen, &c., who crowded the galleries of the Senate chamber to listen to the eloquence of the distinguished statesman. It possesses an historical interest which must increase with every passing year, as the men who figure in the present, one after another, disappear from the arena of public life. It has been well remarked that this picture marks the second age of our country, as Trumbull's "Declaration of Independence" did the first. It is really a splendid engraving, which the patriotic American can scarcely fail to appreciate and patronize, as it richly merits.

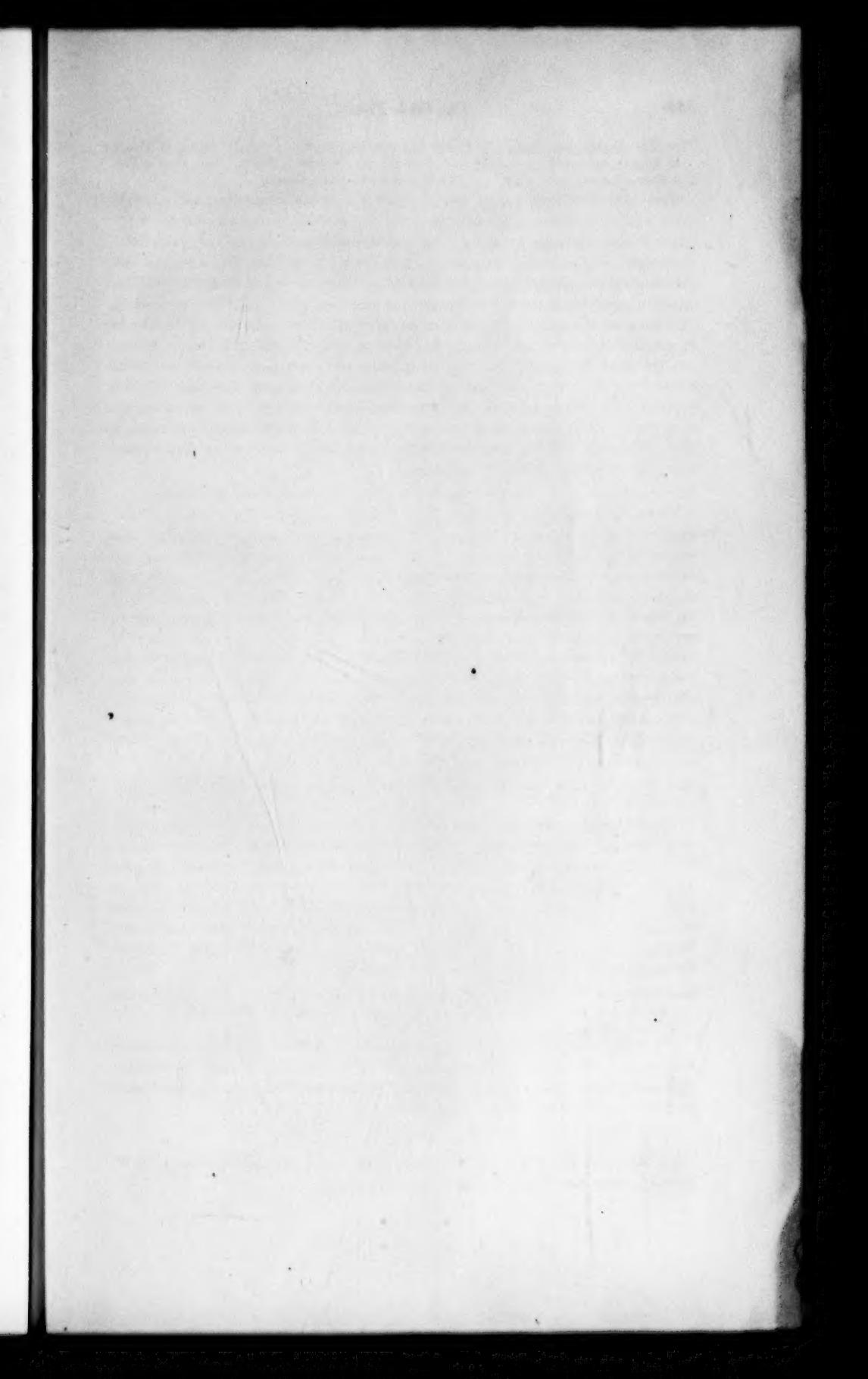
33.—*The Art Union Journal of the Fine Arts.* London: Chapman & Hall. New York: John P. Ridner.

This really elegant work is published monthly in the quarto form, and is devoted to the arts, decorative and ornamental, besides furnishing a record of British industrial art. Each number contains two steel plate engravings, executed in the best manner. A great number of beautiful engravings on wood, illustrative of the various subjects, adorn its pages. The literary department is managed by Mrs. S. C. Hall, a lady not unknown to fame, and the whole work comes out under the superintendence of the "London Art Union." We are gratified to learn that it is receiving in this country, as it deserves, a liberal support from persons of taste and discrimination.

34.—*Chambers' Miscellany of Useful and Entertaining Knowledge.* Edited by ROBERT CHAMBERS, author of the "Cyclopaedia of English Literature." Boston: Gould, Kendall & Lincoln.

The fifth number of this popular reprint, contains an Account of a Visit to Vesuvius, Pompeii, and Herculaneum; Story of Baptiste Lulli; Poems of Kindness to Animals; William Robert and Robert Bruce; Cases of Circumstantial Evidence; Story of Richard Falconer; and Byron's Narrative of the Wager.

C Merchants and others are cautioned against paying any subscriptions to C. W. HUBBELL, on account of the Merchants' Magazine.





G. Shaw

N. Audley Street